GRIP

GLOBAL RESPIRATORY INFECTION PARTNERSHIP

RESPONSIBILITY TREATS BEST

STOP ANTIBIOTIC OVERUSE

GRIP 1,2,3 TREATMENT ALGORITHM FOR URTI

I AM A PHARMACIST

I AM A DOCTOR

Find out more about GRIP

Reference number: UK/CC-NHS/0818/0005g
Date of preparation: August 2018.

Reckitt Benckiser has funded and supported the development of this material, including review of content for code compliance. The views and opinions represent those of the Global Respiratory Infection Partnership (GRIP) and are not necessarily the views of Reckitt Benckiser as the sponsor.

GRIP

GLOBAL RESPIRATORY INFECTION PARTNERSHIP

The Global Respiratory Infection Partnership (GRIP) is an international group of healthcare professionals committed to reducing inappropriate antibiotic use for respiratory tract infections in primary care and the wider community, helping to counteract antibiotic resistance.

Produced and distributed by RB with the support of GRIP, which was convened and funded by RB.

RESPONSIBILITY TREATS BEST

STOP ANTIBIOTIC OVERUSE

GRIP

GLOBAL RESPIRATORY INFECTION PARTNERSHIP

RESPONSIBILITY TREATS BEST

STOP ANTIBIOTIC OVERUSE

GRIP 1,2,3 TREATMENT ALGORITHM FOR URTI

I AM A PHARMACIST

I AM A DOCTOR

Find out more about GRIP

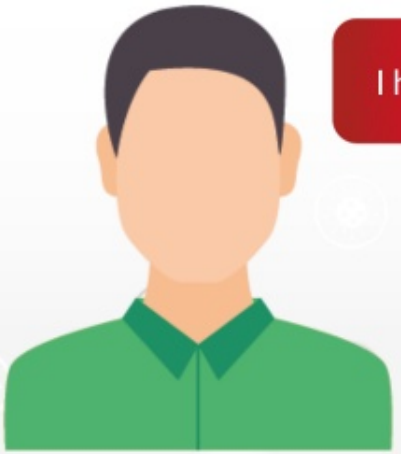
Reference number: UK/CC-NHS/0818/0005g
Date of preparation: August 2018.

GRIP
GLOBAL RESPIRATORY INFECTION PARTNERSHIP

RESPONSIBILITY TREATS BEST
STOP ANTIBIOTIC OVERUSE

GRIP 1,2,3 TREATMENT ALGORITHM FOR URTI

1 ADDRESS PATIENT'S CONCERNS



I have a cold, sore throat, earache or cough

Customer

That can be very painful and irritating. Is there anything you are finding particularly worrying or bothersome about your symptoms and how do you think I can help you?

Pharmacist

It's just annoying and I want to know how I can get back to normal as soon as I can

Customer

I think I need antibiotics

Customer

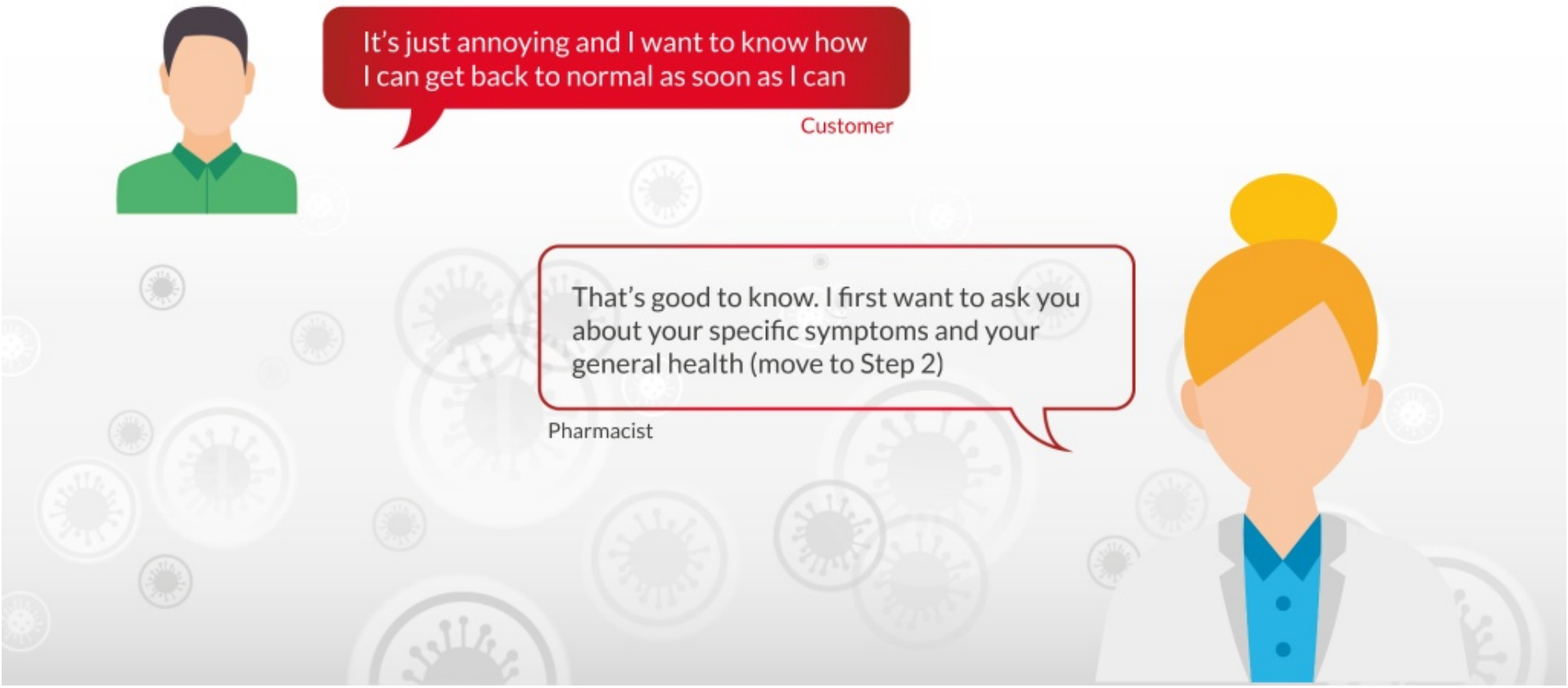
I have a prescription for antibiotics

Customer

I am worried about my symptoms

Customer

1 ADDRESS PATIENT'S CONCERNS



1 ADDRESS PATIENT'S CONCERNS

I think I need antibiotics

Customer

I understand, but is there a particular reason you think antibiotics could help you?

Pharmacist

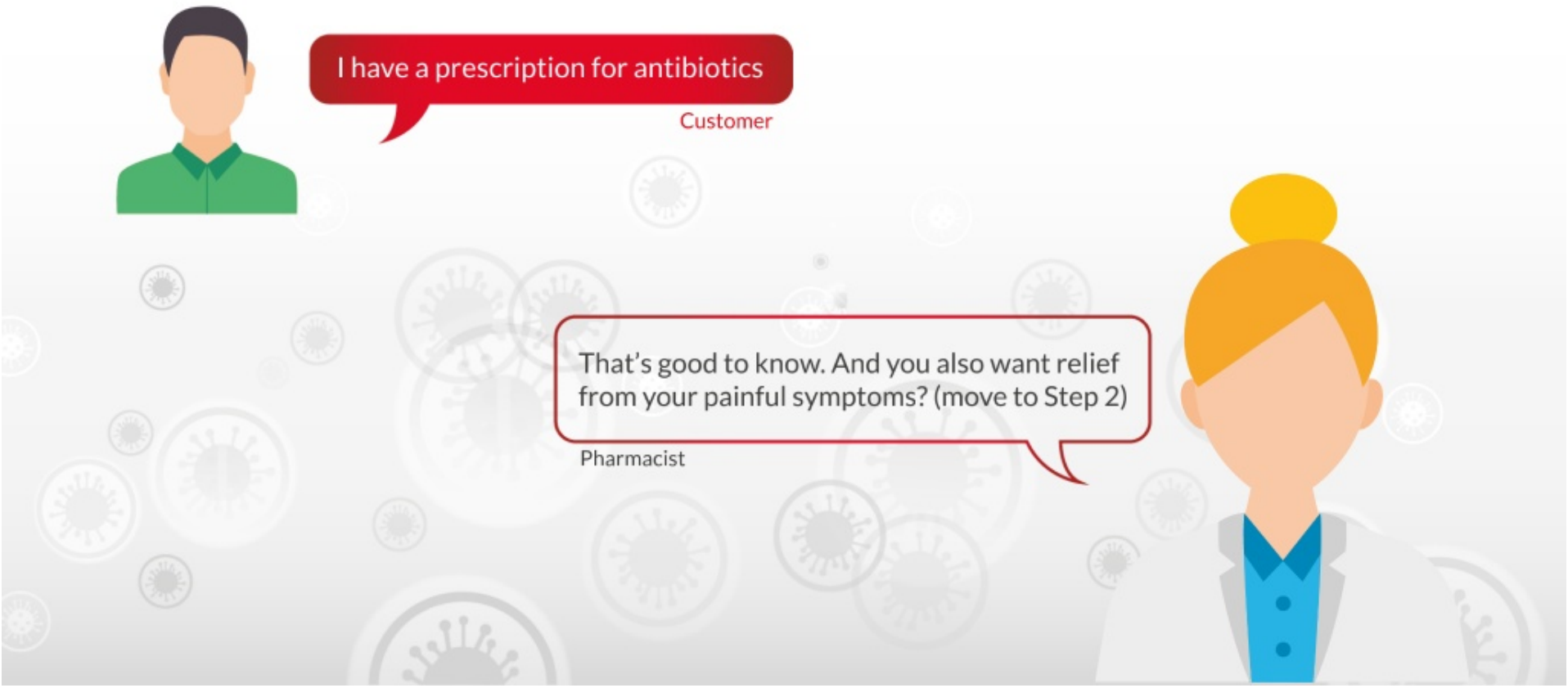
They worked last time I had an infection and so I think antibiotics will help

Customer

That's good to know. I first want to ask you about your specific symptoms and your general health (move to Step 2)

Pharmacist

1 ADDRESS PATIENT'S CONCERNS



1 ADDRESS PATIENT'S CONCERNS

I am worried about my symptoms

Customer

Can you please tell me why you are worried?

Pharmacist

My symptoms are severe and have lasted so long, and I hear there can be complications

Customer

That's good to know. I first want to ask you about your specific symptoms and your general health (move to Step 2)

Pharmacist

2 BE VIGILANT – ASSESS SEVERITY

Please could you describe your symptoms in more detail?

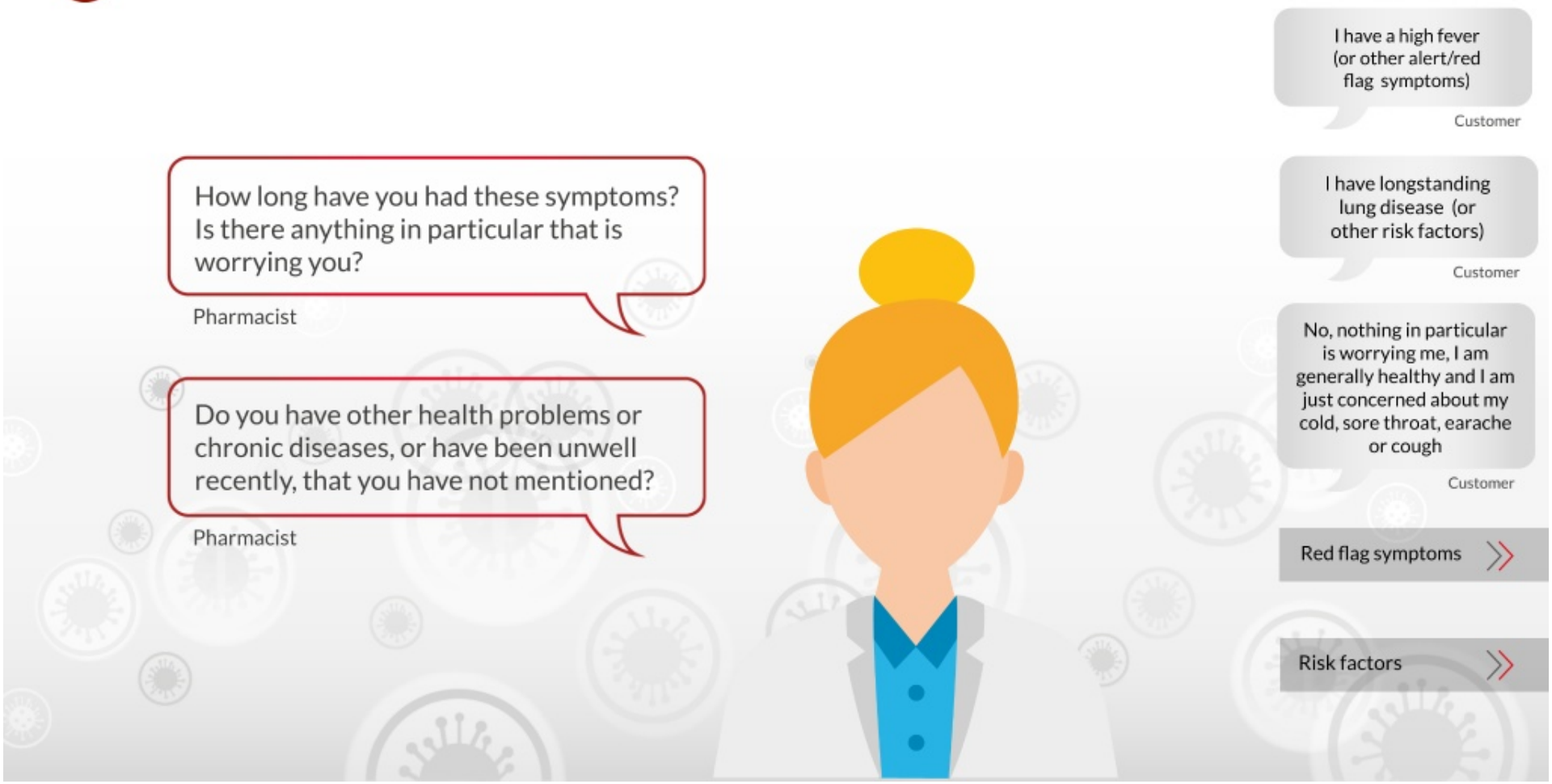
Are you experiencing:
- Sore throat
- Cough
- Earache
- Nasal congestion
- Runny nose
- Muscle aches
- Fever

Pharmacist

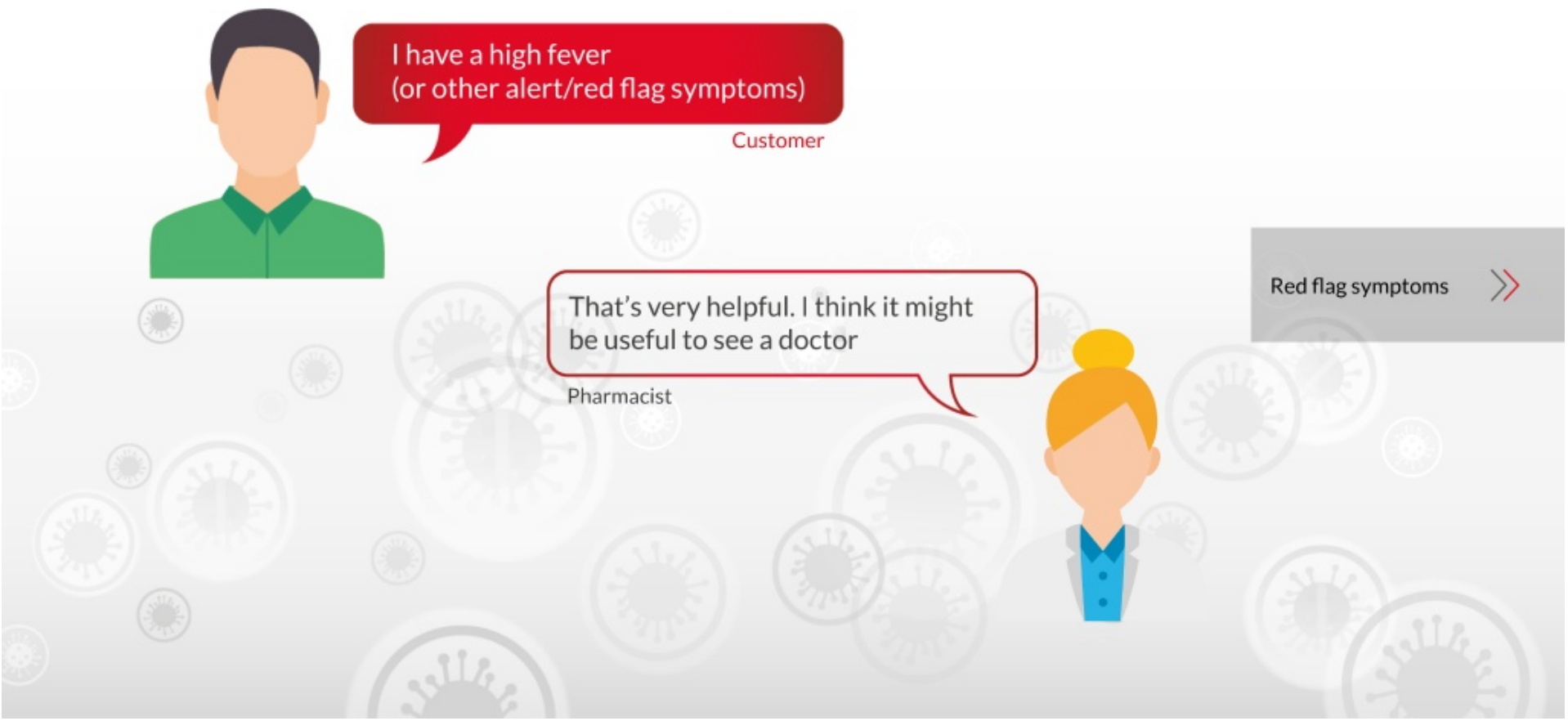
Next

2 BE VIGILANT – ASSESS SEVERITY

PHARMACY



2 BE VIGILANT – ASSESS SEVERITY



ALERT/RED FLAG SIGNS AND SYMPTOMS

Any of these red flag symptoms require further investigation:

- Coughing up blood[1]
- Shortness of breath, wheezing sounds, respiratory distress[1,2]
- Great difficulty swallowing, e.g. unable to swallow food[1]
- Drooling or muffled voice[2]
- Neck swelling[2] on one side of the neck, not related to the lymph nodes[3]
- Very high temperature (>39°C) or night sweats[3]

If the patient has three or more Centor criteria,[3-5] the likelihood of strep throat is increased and antibiotics may be indicated[3]

CRITERIA	POINTS
Absence of cough	1
Swollen and tender anterior cervical nodes	1
Temperature >38°C	1
Tonsillar exudates or swelling	1
Age	
3–14 years	1
15–44 years	0
45 years and older	-1
Cumulative score	_____

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

2 BE VIGILANT – ASSESS SEVERITY

HIGH-RISK PATIENTS

Be alert to those patients at increased risk of influenza complications:[6,7]

- Elderly patients aged >65 years or young children <2 years or born prematurely[6,7]
- Immunocompromised patients[6]
- Patients with pre-existing conditions such as diabetes, cystic fibrosis, chronic lung disease, HIV[6,7]

Antiviral medication may be indicated for patients with confirmed or suspected influenza who are at risk of complications[8]

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

2 BE VIGILANT – ASSESS SEVERITY

No, nothing in particular is worrying me, I am generally healthy and I am just concerned about my cold, sore throat, earache or cough

Customer

It sounds like you have an upper respiratory tract infection (URTI) (move to Step 3)

Pharmacist

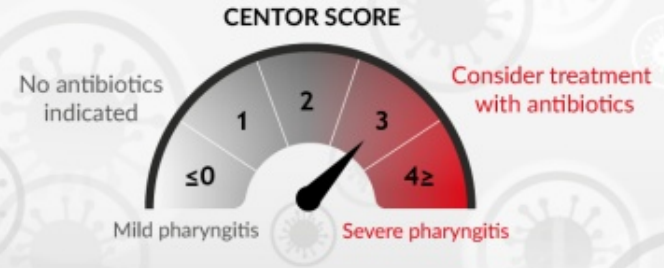
ALERT/RED FLAG SIGNS AND SYMPTOMS

Any of these red flag symptoms require further investigation:

- Coughing up blood[1]
- Shortness of breath, wheezing sounds, respiratory distress[1,2]
- Great difficulty swallowing, e.g. unable to swallow food[1]
- Drooling or muffled voice[2]
- Neck swelling[2] on one side of the neck, not related to the lymph nodes[3]
- Very high temperature (>39°C) or night sweats[3]

If the patient has three or more Centor criteria,[3-5] the likelihood of strep throat is increased and antibiotics may be indicated[3]

CRITERIA	POINTS
Absence of cough	1
Swollen and tender anterior cervical nodes	1
Temperature >38°C	1
Tonsillar exudates or swelling	1
Age	
3–14 years	1
15–44 years	0
45 years and older	-1
Cumulative score	_____



References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

HIGH-RISK PATIENTS

Be alert to those patients at increased risk of influenza complications:[6,7]

- Elderly patients aged >65 years or young children <2 years or born prematurely[6,7]
- Immunocompromised patients[6]
- Patients with pre-existing conditions such as diabetes, cystic fibrosis, chronic lung disease, HIV[6,7]

Antiviral medication may be indicated for patients with confirmed or suspected influenza who are at risk of complications[8]

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

URTI is usually caused by a virus, and the symptoms are caused by your immune system fighting the infection

Pharmacist

As you're otherwise healthy your immune system should be strong enough to tackle it, so we just need to help you get relief for your symptoms

Pharmacist

Earlier, you said:

Pharmacist

It's just annoying and I want to know how I can get back to normal as soon as I can

Customer

I think I need antibiotics

Customer

I have a prescription for antibiotics

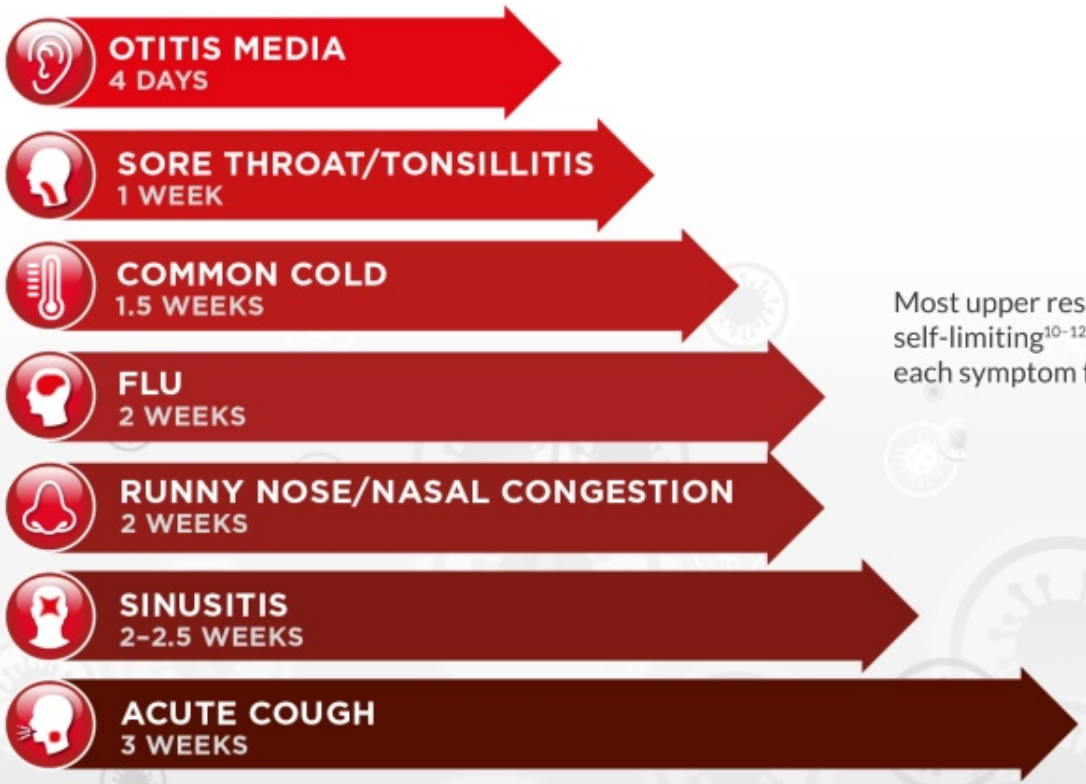
Customer

I am worried about my symptoms

Customer

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

DURATION OF URTI SYMPTOMS



Most upper respiratory tract infections (URTIs) are self-limiting[10–12] and short-lived, and the duration of each symptom from its first occurrence varies[6,9,13–16]

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

I would like something to relieve my throat pain/ headache/earache/fever/cough/blocked nose

Customer

What treatment(s) have you used before? A product for one symptom or multiple symptoms? Tablets? Nasal spray? Ear drops? Lozenges? Throat spray? Cough syrup? Hot drinks? Is there a particular type of treatment that you prefer using?

Pharmacist

Treatment table

I prefer or have used [a specific format/product]

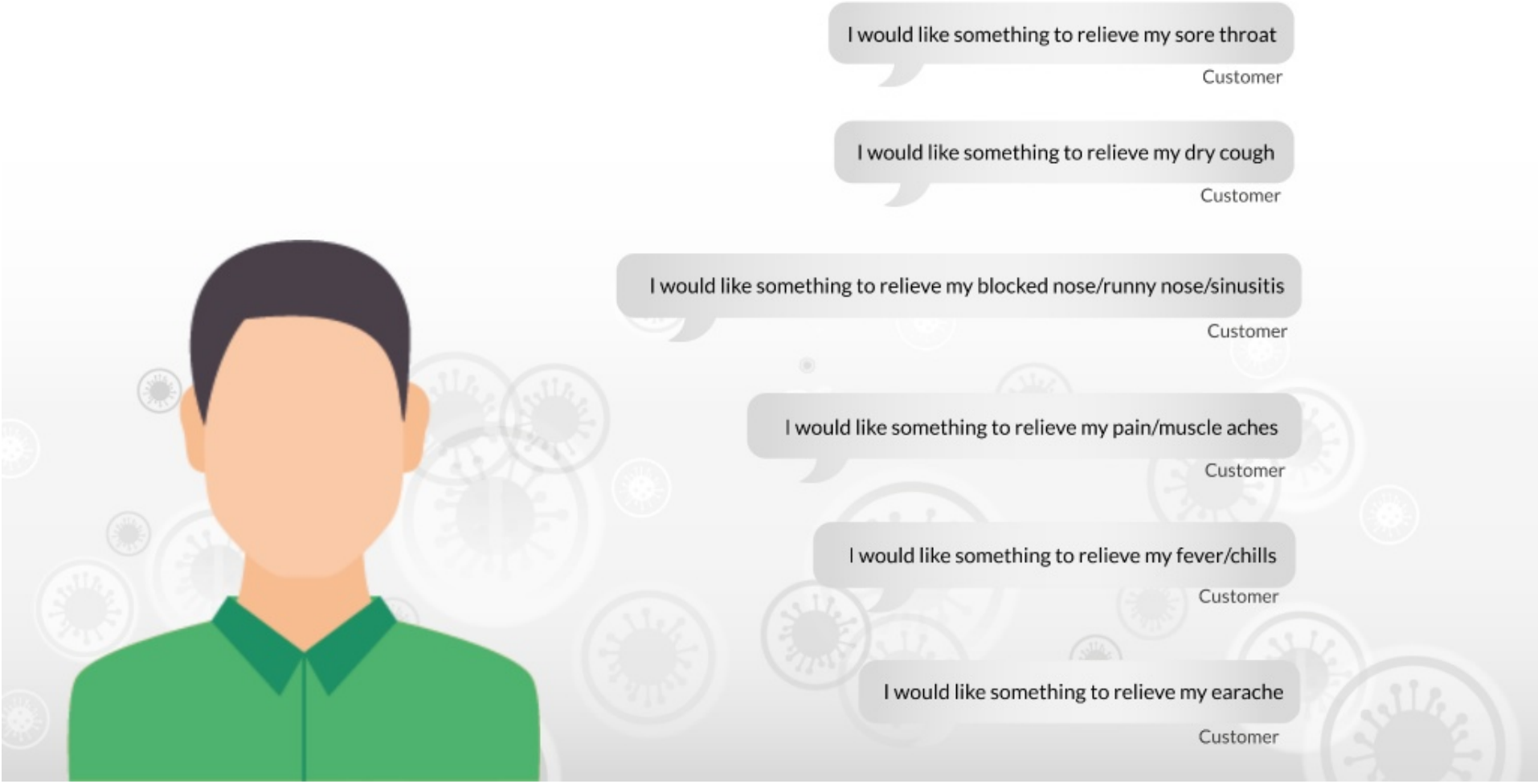
Customer

From the way you have described your symptoms, and your preferences to treatment type, I think this symptomatic relief treatment [a specific product, based on treatment table] would be good for you

Pharmacist

Next

SYMPTOMATIC TREATMENT OF URTIs



SYMPTOMATIC TREATMENT OF SORE THROAT

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Demulcent effect	Low dose, low risk of adverse effect	Notes
Local non-steroidal anti-inflammatory drug (NSAID) lozenge (e.g. flurbiprofen)	✓	✓ [1–4,6]	✓ [5]	✓ [4]	✓ [1–4,6]	Locally inhibits prostaglandin production[5] to target inflammation. Local anti-inflammatory[5] and pain relieving[1–4,6] action in the throat
Local NSAID throat spray (e.g. flurbiprofen)	✓	✓ [7,8]	✓ [5]	✗	✓ [7,8]	Locally inhibits prostaglandin production[5] to target inflammation. Directly targets the throat[9] to provide local anti-inflammatory[5] and pain relieving[7,8] action
Medicated lozenge containing antiseptics/anaesthetics (e.g. amylmetacresol [AMC], 2,4-dichlorobenzyl alcohol [DCBA], hexylresorcinol, lidocaine)	✓	✓ [10–13]	✗	✓ [10]	✓ [10, 13]	Lozenge dissolves slowly to release active ingredients.[14] AMC/DCBA and hexylresorcinol have antiseptic/antibacterial/antiviral actions and block voltage-gated Na+ channels in a local anaesthetic-like manner[11,14] Lidocaine is a local anaesthetic, blocks voltage-gated Na channels[11,14]
Oral NSAID tablet (e.g. ibuprofen)	✗	✓ [15–17]	✓ [16]	✗	✗	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever.[16] Slower acting[17] than local treatments[4,7]
Oral analgesic tablet (e.g. paracetamol)	✗	✓ [18]	✗	✗	✗	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low-level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF DRY COUGH

Examples of formulations and active ingredients	Local delivery	Relieves acute cough	Notes
Cough suppressant lozenge/syrup (e.g. dextromethorphan)	✗	?[19]	Non-sedating opiate, and a component of many over-the-counter cough remedies.[20] Suppresses the cough reflex[20,21] although clinical evidence is conflicting.[19] Can cause hallucinations when taken in large doses[21]
Local menthol	✗	?[22]	Menthol by inhalation suppresses cough[20] and is a component of many over-the-counter cough remedies.[20] However, menthol has been reported to worsen cough in some people[22]
Sedative antihistamine syrup/tablet (e.g. diphenhydramine)	✗	?[19]	First-generation antihistamines suppress cough,[20] although clinical evidence is conflicting.[19] Can cause drowsiness, so may be best suited to nocturnal cough[20]
Oral antihistamine-decongestant-analgesic combination tablet	✗	?[23]	Clinical evidence is conflicting[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF BLOCKED NOSE/RUNNY NOSE/SINUSITIS

Examples of formulations and active ingredients	Local delivery	Relieves nasal congestion (blocked nose)	Relieves rhinorrhoea (runny nose)	Relieves acute rhinosinusitis	Notes
Decongestant nasal spray (e.g. pseudoephedrine)	✓	✓[24,25]	—	—	Decongestants constrict swollen nasal blood vessels.[25,26] Due to risk of rebound congestion, nasal decongestants should not be used for longer than 5 days[24]
Anti-cholinergic nasal spray (e.g. ipratropium)	✓	✗[27]	✓[27]	—	Anti-cholinergics reduce the amount of mucus produced in the nose[27]
Corticosteroid nasal spray (e.g. fluticasone)	✓	—	—	✓[28]	Mode of action for sinusitis uncertain, but likely local effect on inflammatory cells and their mediators[28]
Oral antihistamine tablet (e.g. diphenhydramine)	✗	?[29]	?[29]	—	Antihistamines reduce histamine-related nasal mucosal swelling and secretion[26]
Oral antihistamine-decongestant-analgesic combination tablet	✗	?[23]	?[23]	—	Evidence of limited efficacy for nasal congestion and rhinorrhoea, but it is not clear if these effects are clinically relevant[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF PAIN/MUSCLE ACHES

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF FEVER/CHILLS

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF EARACHE

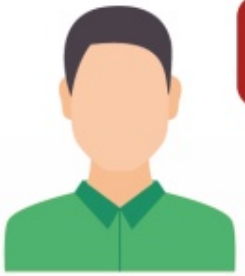
Examples of formulations and active ingredients	Local delivery	Relieves pain	Notes
Local anaesthetic ear drops (e.g. lignocaine)	✓	✓[30,31]	Faster pain relief than oral analgesics[32]
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[33]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[33]	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT



I am not sure, are there other types of medicines that might help?

Customer

Antibiotics don't work against most URTIs because they are usually caused by viruses

Pharmacist

Besides this treatment option make sure you take care of yourself. Drink plenty of fluids, rest and manage your symptoms with the right products to help you feel better fast. If symptoms worsen, last longer than expected or new symptoms develop come back and see me

Pharmacist

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

I think I need antibiotics

Customer

Antibiotics don't work against most URTIs because they are usually caused by viruses. They aren't pain relievers and they can cause side effects. They can do more harm than good. Antibiotics won't help you this time

Pharmacist

It might be good to have them just in case I don't get better

Customer

Taking antibiotics when you don't need them can cause bacteria in your body to become resistant – it could make it harder to treat you, or your family or friends, if you get a serious infection

Pharmacist

Let's look at ways to effectively relieve your symptoms while your body fights the infection itself

Pharmacist

URTIs can last up to 3 weeks so it's important that we find the right relief for you

Pharmacist

You said you were experiencing these symptoms (refer back to symptoms discussed previously)

Pharmacist

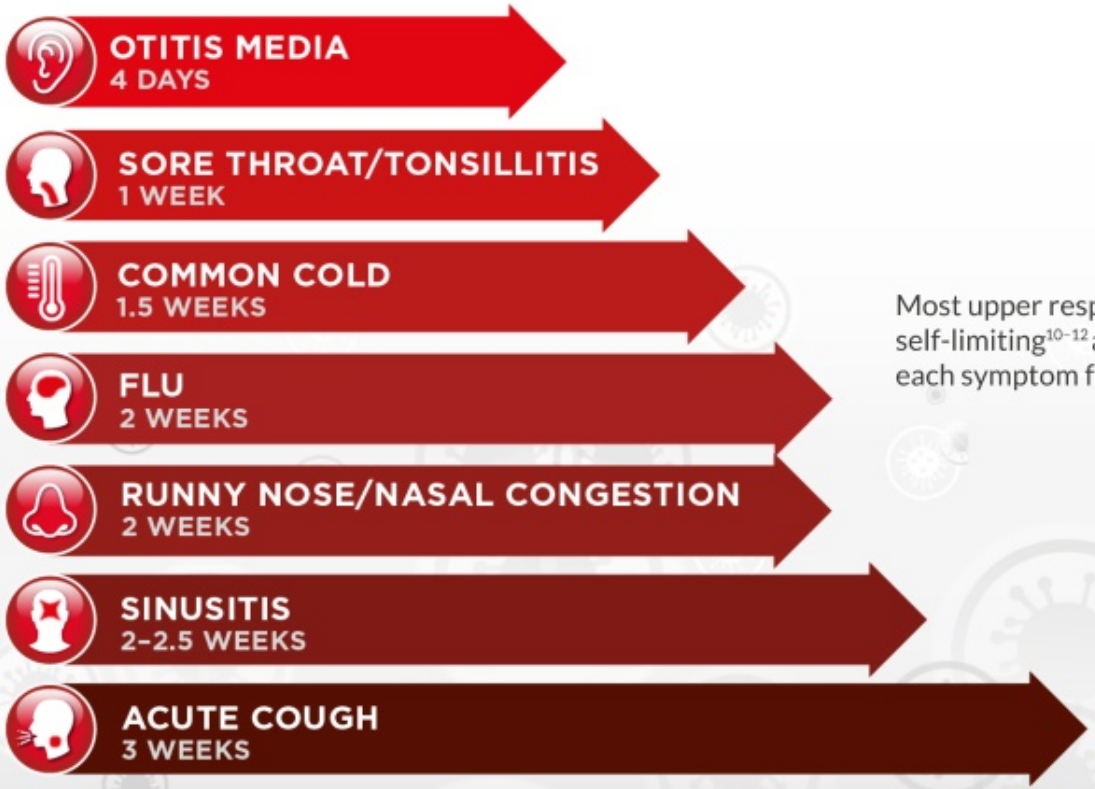
Which are the symptoms you are finding most troublesome?

Pharmacist

How long do symptoms usually last? >>

Next >>

DURATION OF URTI SYMPTOMS



Most upper respiratory tract infections (URTIs) are self-limiting[10–12] and short-lived, and the duration of each symptom from its first occurrence varies[6,9,13–16]

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

I would like something to relieve my throat pain/ headache/earache/fever/cough/blocked nose

Customer

What treatment(s) have you used before? A product for one symptom or multiple symptoms? Tablets? Nasal spray? Ear drops? Lozenges? Throat spray? Cough syrup? Hot drinks? Is there a particular type of treatment that you prefer using?

Pharmacist

Treatment table

I prefer or have used [a specific format/product]

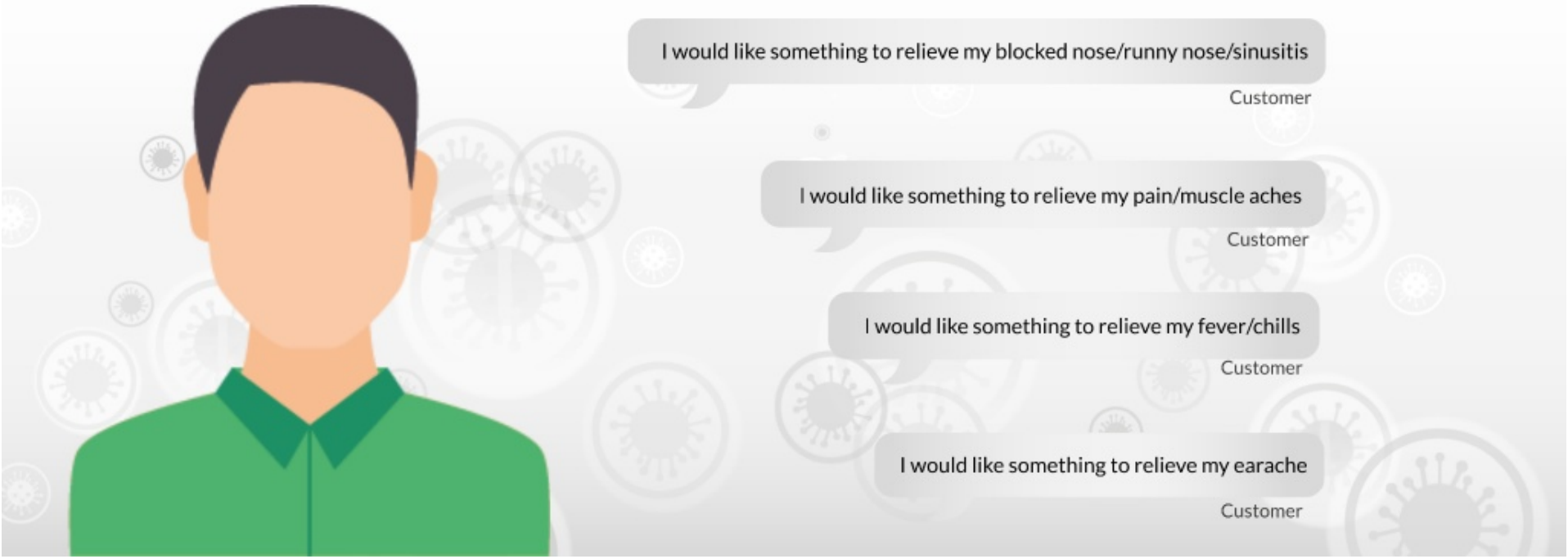
Customer

From the way you have described your symptoms, and your preferences to treatment type, I think this symptomatic relief treatment [a specific product, based on treatment table] would be good for you

Pharmacist

Next

SYMPTOMATIC TREATMENT OF URTIs



SYMPTOMATIC TREATMENT OF SORE THROAT

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Demulcent effect	Low dose, low risk of adverse effect	Notes
Local non-steroidal anti-inflammatory drug (NSAID) lozenge (e.g. flurbiprofen)	✓	✓[1–4,6]	✓[5]	✓[4]	✓[1–4,6]	Locally inhibits prostaglandin production[5] to target inflammation. Local anti-inflammatory[5] and pain relieving[1–4,6] action in the throat
Local NSAID throat spray (e.g. flurbiprofen)	✓	✓[7,8]	✓[5]	✗	✓[7,8]	Locally inhibits prostaglandin production[5] to target inflammation. Directly targets the throat[9] to provide local anti-inflammatory[5] and pain relieving[7,8] action
Medicated lozenge containing antiseptics/anaesthetics (e.g. amylmetacresol [AMC], 2,4-dichlorobenzyl alcohol [DCBA], hexylresorcinol, lidocaine)	✓	✓[10–13]	✗	✓[10]	✓[10, 13]	Lozenge dissolves slowly to release active ingredients.[14] AMC/DCBA and hexylresorcinol have antiseptic/antibacterial/antiviral actions and block voltage-gated Na+ channels in a local anaesthetic-like manner[11,14] Lidocaine is a local anaesthetic, blocks voltage-gated Na channels[11,14]
Oral NSAID tablet (e.g. ibuprofen)	✗	✓[15–17]	✓[16]	✗	✗	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever.[16] Slower acting[17] than local treatments[4,7]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✗	✗	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low-level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF DRY COUGH

Examples of formulations and active ingredients	Local delivery	Relieves acute cough	Notes
Cough suppressant lozenge/syrup (e.g. dextromethorphan)	✗	?[19]	Non-sedating opiate, and a component of many over-the-counter cough remedies.[20] Suppresses the cough reflex[20,21] although clinical evidence is conflicting.[19] Can cause hallucinations when taken in large doses[21]
Local menthol	✗	?[22]	Menthol by inhalation suppresses cough[20] and is a component of many over-the-counter cough remedies.[20] However, menthol has been reported to worsen cough in some people[22]
Sedative antihistamine syrup/tablet (e.g. diphenhydramine)	✗	?[19]	First-generation antihistamines suppress cough,[20] although clinical evidence is conflicting.[19] Can cause drowsiness, so may be best suited to nocturnal cough[20]
Oral antihistamine-decongestant-analgesic combination tablet	✗	?[23]	Clinical evidence is conflicting[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF BLOCKED NOSE/RUNNY NOSE/SINUSITIS

Examples of formulations and active ingredients	Local delivery	Relieves nasal congestion (blocked nose)	Relieves rhinorrhoea (runny nose)	Relieves acute rhinosinusitis	Notes
Decongestant nasal spray (e.g. pseudoephedrine)	✓	✓ [24,25]	—	—	Decongestants constrict swollen nasal blood vessels.[25,26] Due to risk of rebound congestion, nasal decongestants should not be used for longer than 5 days[24]
Anti-cholinergic nasal spray (e.g. ipratropium)	✓	✗ [27]	✓ [27]	—	Anti-cholinergics reduce the amount of mucus produced in the nose[27]
Corticosteroid nasal spray (e.g. fluticasone)	✓	—	—	✓ [28]	Mode of action for sinusitis uncertain, but likely local effect on inflammatory cells and their mediators[28]
Oral antihistamine tablet (e.g. diphenhydramine)	✗	? [29]	? [29]	—	Antihistamines reduce histamine-related nasal mucosal swelling and secretion[26]
Oral antihistamine-decongestant-analgesic combination tablet	✗	? [23]	? [23]	—	Evidence of limited efficacy for nasal congestion and rhinorrhoea, but it is not clear if these effects are clinically relevant[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF PAIN/MUSCLE ACHES

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF FEVER/CHILLS

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF EARACHE

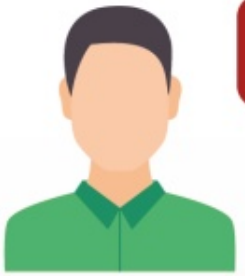
Examples of formulations and active ingredients	Local delivery	Relieves pain	Notes
Local anaesthetic ear drops (e.g. lignocaine)	✓	✓[30,31]	Faster pain relief than oral analgesics[32]
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[33]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[33]	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT



I am not sure, are there other types of medicines that might help?

Customer

Antibiotics don't work against most URTIs because they are usually caused by viruses

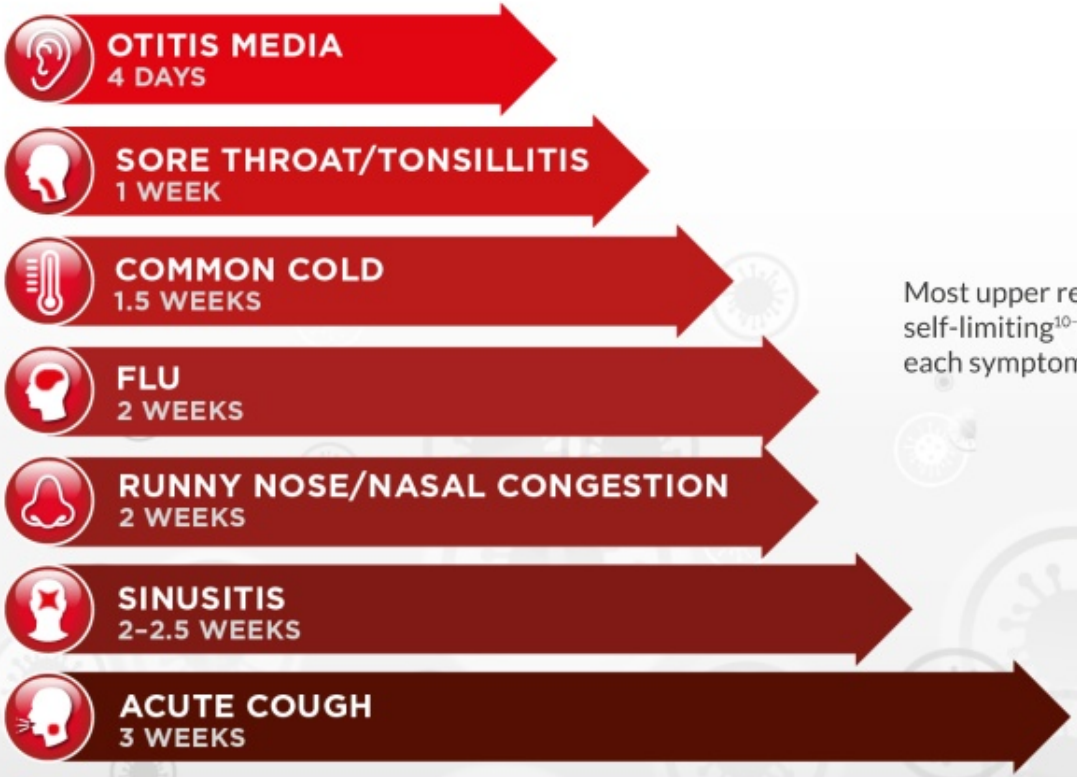
Pharmacist

Besides this treatment option make sure you take care of yourself. Drink plenty of fluids, rest and manage your symptoms with the right products to help you feel better fast. If symptoms worsen, last longer than expected or new symptoms develop come back and see me

Pharmacist


3
COUNSEL ON EFFECTIVE SELF-MANAGEMENT
PHARMACY
I have a prescription for antibiotics
Customer
Antibiotics aren't pain relievers. And you might get side effects – if the antibiotics cause diarrhoea, come back and see me
Pharmacist
Oh, should I take the antibiotics the doctor has prescribed?
Customer
Yes, but you need symptomatic relief too. And bear in mind that when you next have a URTI antibiotics probably won't work because most are caused by viruses
Pharmacist
Taking antibiotics when you don't need them can cause bacteria in your body to become resistant – it could make it harder to treat you, or your family or friends, if you get a serious infection
Pharmacist
Let's look at ways to effectively relieve your symptoms
Pharmacist
URTIs can last up to 3 weeks so it's important that we find the right relief for you
Pharmacist
You said you were experiencing these symptoms (refer back to symptoms discussed previously)
Pharmacist
Which are the symptoms you are finding most troublesome?
Pharmacist
How long do symptoms usually last?
Next

DURATION OF URTI SYMPTOMS



Most upper respiratory tract infections (URTIs) are self-limiting[10–12] and short-lived, and the duration of each symptom from its first occurrence varies[6,9,13–16]

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

I would like something to relieve my throat pain/ headache/earache/fever/cough/blocked nose

Customer

What treatment(s) have you used before? A product for one symptom or multiple symptoms? Tablets? Nasal spray? Ear drops? Lozenges? Throat spray? Cough syrup? Hot drinks? Is there a particular type of treatment that you prefer using?

Pharmacist

Treatment table

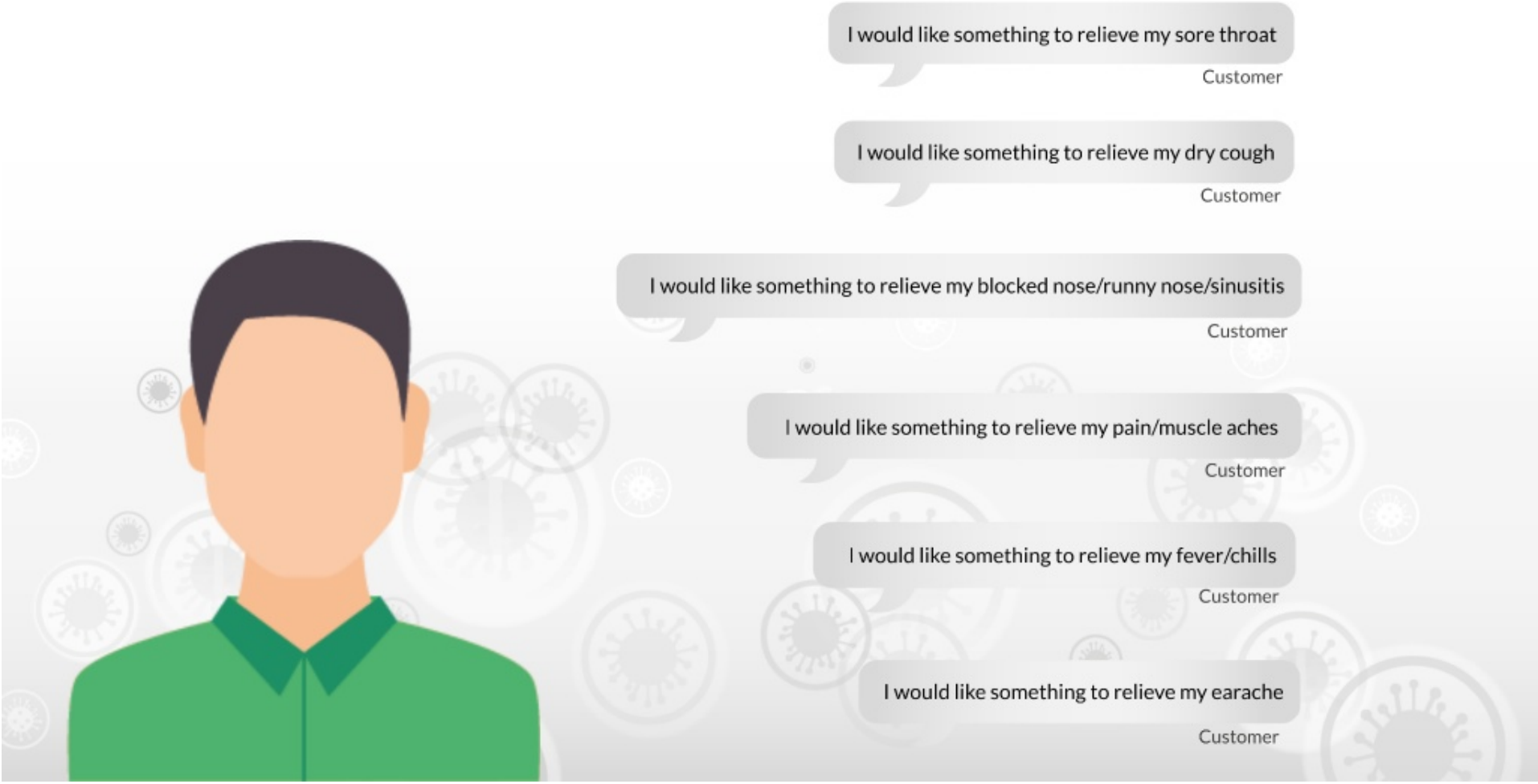
I prefer or have used [a specific format/product]

Customer

From the way you have described your symptoms, and your preferences to treatment type, I think this symptomatic relief treatment [a specific product, based on treatment table] would be good for you

Pharmacist

Next


I would like something to relieve my sore throat
Customer
I would like something to relieve my dry cough
Customer
I would like something to relieve my blocked nose/runny nose/sinusitis
Customer
I would like something to relieve my pain/muscle aches
Customer
I would like something to relieve my fever/chills
Customer
I would like something to relieve my earache
Customer

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Demulcent effect	Low dose, low risk of adverse effect	Notes
Local non-steroidal anti-inflammatory drug (NSAID) lozenge (e.g. flurbiprofen)	✓	✓[1–4,6]	✓[5]	✓[4]	✓[1–4,6]	Locally inhibits prostaglandin production[5] to target inflammation. Local anti-inflammatory[5] and pain relieving[1–4,6] action in the throat
Local NSAID throat spray (e.g. flurbiprofen)	✓	✓[7,8]	✓[5]	✗	✓[7,8]	Locally inhibits prostaglandin production[5] to target inflammation. Directly targets the throat[9] to provide local anti-inflammatory[5] and pain relieving[7,8] action
Medicated lozenge containing antiseptics/anaesthetics (e.g. amylmetacresol [AMC], 2,4-dichlorobenzyl alcohol [DCBA], hexylresorcinol, lidocaine)	✓	✓[10–13]	✗	✓[10]	✓[10, 13]	Lozenge dissolves slowly to release active ingredients.[14] AMC/DCBA and hexylresorcinol have antiseptic/antibacterial/antiviral actions and block voltage-gated Na+ channels in a local anaesthetic-like manner[11,14] Lidocaine is a local anaesthetic, blocks voltage-gated Na channels[11,14]
Oral NSAID tablet (e.g. ibuprofen)	✗	✓[15–17]	✓[16]	✗	✗	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever.[16] Slower acting[17] than local treatments[4,7]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✗	✗	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low-level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF DRY COUGH

Examples of formulations and active ingredients	Local delivery	Relieves acute cough	Notes
Cough suppressant lozenge/syrup (e.g. dextromethorphan)	✗	?[19]	Non-sedating opiate, and a component of many over-the-counter cough remedies.[20] Suppresses the cough reflex[20,21] although clinical evidence is conflicting.[19] Can cause hallucinations when taken in large doses[21]
Local menthol	✗	?[22]	Menthol by inhalation suppresses cough[20] and is a component of many over-the-counter cough remedies.[20] However, menthol has been reported to worsen cough in some people[22]
Sedative antihistamine syrup/tablet (e.g. diphenhydramine)	✗	?[19]	First-generation antihistamines suppress cough,[20] although clinical evidence is conflicting.[19] Can cause drowsiness, so may be best suited to nocturnal cough[20]
Oral antihistamine-decongestant-analgesic combination tablet	✗	?[23]	Clinical evidence is conflicting[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF BLOCKED NOSE/RUNNY NOSE/SINUSITIS

Examples of formulations and active ingredients	Local delivery	Relieves nasal congestion (blocked nose)	Relieves rhinorrhoea (runny nose)	Relieves acute rhinosinusitis	Notes
Decongestant nasal spray (e.g. pseudoephedrine)	✓	✓ [24,25]	—	—	Decongestants constrict swollen nasal blood vessels.[25,26] Due to risk of rebound congestion, nasal decongestants should not be used for longer than 5 days[24]
Anti-cholinergic nasal spray (e.g. ipratropium)	✓	✗ [27]	✓ [27]	—	Anti-cholinergics reduce the amount of mucus produced in the nose[27]
Corticosteroid nasal spray (e.g. fluticasone)	✓	—	—	✓ [28]	Mode of action for sinusitis uncertain, but likely local effect on inflammatory cells and their mediators[28]
Oral antihistamine tablet (e.g. diphenhydramine)	✗	? [29]	? [29]	—	Antihistamines reduce histamine-related nasal mucosal swelling and secretion[26]
Oral antihistamine-decongestant-analgesic combination tablet	✗	? [23]	? [23]	—	Evidence of limited efficacy for nasal congestion and rhinorrhoea, but it is not clear if these effects are clinically relevant[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF PAIN/MUSCLE ACHES

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF FEVER/CHILLS

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF EARACHE

Examples of formulations and active ingredients	Local delivery	Relieves pain	Notes
Local anaesthetic ear drops (e.g. lignocaine)	✓	✓[30,31]	Faster pain relief than oral analgesics[32]
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[33]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[33]	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

I am not sure, are there other types of medicines that might help?

Customer

Antibiotics don't work against most URTIs because they are usually caused by viruses

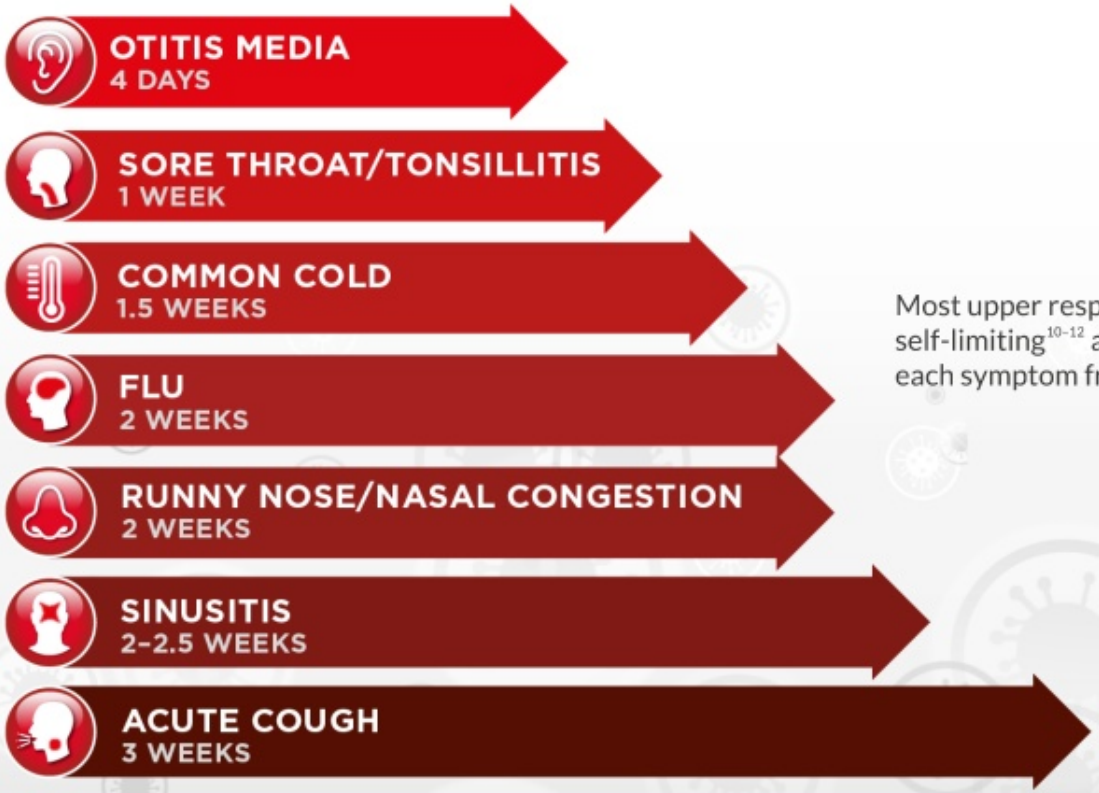
Pharmacist

Besides this treatment option make sure you take care of yourself. Drink plenty of fluids, rest and manage your symptoms with the right products to help you feel better fast. If symptoms worsen, last longer than expected or new symptoms develop come back and see me

Pharmacist

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

DURATION OF URTI SYMPTOMS



Most upper respiratory tract infections (URTIs) are self-limiting[10–12] and short-lived, and the duration of each symptom from its first occurrence varies[6,9,13–16]

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

I would like something to relieve my throat pain/ headache/earache/fever/cough/blocked nose

Customer

What treatment(s) have you used before? A product for one symptom or multiple symptoms? Tablets? Nasal spray? Ear drops? Lozenges? Throat spray? Cough syrup? Hot drinks? Is there a particular type of treatment that you prefer using?

Pharmacist

Treatment table

I prefer or have used [a specific format/product]

Customer

From the way you have described your symptoms, and your preferences to treatment type, I think this symptomatic relief treatment [a specific product, based on treatment table] would be good for you

Pharmacist

Next

SYMPTOMATIC TREATMENT OF URTIs

PHARMACY

I would like something to relieve my sore throat

Customer

I would like something to relieve my dry cough

Customer

I would like something to relieve my blocked nose/runny nose/sinusitis

Customer

I would like something to relieve my pain/muscle aches

Customer

I would like something to relieve my fever/chills

Customer

I would like something to relieve my earache

Customer

SYMPTOMATIC TREATMENT OF SORE THROAT

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Demulcent effect	Low dose, low risk of adverse effect	Notes
Local non-steroidal anti-inflammatory drug (NSAID) lozenge (e.g. flurbiprofen)	✓	✓ [1–4,6]	✓ [5]	✓ [4]	✓ [1–4,6]	Locally inhibits prostaglandin production[5] to target inflammation. Local anti-inflammatory[5] and pain relieving[1–4,6] action in the throat
Local NSAID throat spray (e.g. flurbiprofen)	✓	✓ [7,8]	✓ [5]	✗	✓ [7,8]	Locally inhibits prostaglandin production[5] to target inflammation. Directly targets the throat[9] to provide local anti-inflammatory[5] and pain relieving[7,8] action
Medicated lozenge containing antiseptics/anaesthetics (e.g. amylmetacresol [AMC], 2,4-dichlorobenzyl alcohol [DCBA], hexylresorcinol, lidocaine)	✓	✓ [10–13]	✗	✓ [10]	✓ [10, 13]	Lozenge dissolves slowly to release active ingredients.[14] AMC/DCBA and hexylresorcinol have antiseptic/antibacterial/antiviral actions and block voltage-gated Na+ channels in a local anaesthetic-like manner[11,14] Lidocaine is a local anaesthetic, blocks voltage-gated Na channels[11,14]
Oral NSAID tablet (e.g. ibuprofen)	✗	✓ [15–17]	✓ [16]	✗	✗	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever.[16] Slower acting[17] than local treatments[4,7]
Oral analgesic tablet (e.g. paracetamol)	✗	✓ [18]	✗	✗	✗	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low-level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF DRY COUGH

Examples of formulations and active ingredients	Local delivery	Relieves acute cough	Notes
Cough suppressant lozenge/syrup (e.g. dextromethorphan)	✗	?[19]	Non-sedating opiate, and a component of many over-the-counter cough remedies.[20] Suppresses the cough reflex[20,21] although clinical evidence is conflicting.[19] Can cause hallucinations when taken in large doses[21]
Local menthol	✗	?[22]	Menthol by inhalation suppresses cough[20] and is a component of many over-the-counter cough remedies.[20] However, menthol has been reported to worsen cough in some people[22]
Sedative antihistamine syrup/tablet (e.g. diphenhydramine)	✗	?[19]	First-generation antihistamines suppress cough,[20] although clinical evidence is conflicting.[19] Can cause drowsiness, so may be best suited to nocturnal cough[20]
Oral antihistamine-decongestant-analgesic combination tablet	✗	?[23]	Clinical evidence is conflicting[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF BLOCKED NOSE/RUNNY NOSE/SINUSITIS

Examples of formulations and active ingredients	Local delivery	Relieves nasal congestion (blocked nose)	Relieves rhinorrhoea (runny nose)	Relieves acute rhinosinusitis	Notes
Decongestant nasal spray (e.g. pseudoephedrine)	✓	✓[24,25]	—	—	Decongestants constrict swollen nasal blood vessels.[25,26] Due to risk of rebound congestion, nasal decongestants should not be used for longer than 5 days[24]
Anti-cholinergic nasal spray (e.g. ipratropium)	✓	✗[27]	✓[27]	—	Anti-cholinergics reduce the amount of mucus produced in the nose[27]
Corticosteroid nasal spray (e.g. fluticasone)	✓	—	—	✓[28]	Mode of action for sinusitis uncertain, but likely local effect on inflammatory cells and their mediators[28]
Oral antihistamine tablet (e.g. diphenhydramine)	✗	?[29]	?[29]	—	Antihistamines reduce histamine-related nasal mucosal swelling and secretion[26]
Oral antihistamine-decongestant-analgesic combination tablet	✗	?[23]	?[23]	—	Evidence of limited efficacy for nasal congestion and rhinorrhoea, but it is not clear if these effects are clinically relevant[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF PAIN/MUSCLE ACHES

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF FEVER/CHILLS

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF EARACHE

Examples of formulations and active ingredients	Local delivery	Relieves pain	Notes
Local anaesthetic ear drops (e.g. lignocaine)	✓	✓ [30,31]	Faster pain relief than oral analgesics[32]
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓ [33]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓ [33]	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

I am not sure, are there other types of medicines that might help?

Customer

Antibiotics don't work against most URTIs because they are usually caused by viruses

Pharmacist

Besides this treatment option make sure you take care of yourself. Drink plenty of fluids, rest and manage your symptoms with the right products to help you feel better fast. If symptoms worsen, last longer than expected or new symptoms develop come back and see me

Pharmacist

GRIP

GLOBAL RESPIRATORY INFECTION PARTNERSHIP

RESPONSIBILITY TREATS BEST

STOP ANTIBIOTIC OVERUSE

GRIP 1,2,3 TREATMENT ALGORITHM FOR URTI

I AM A PHARMACIST

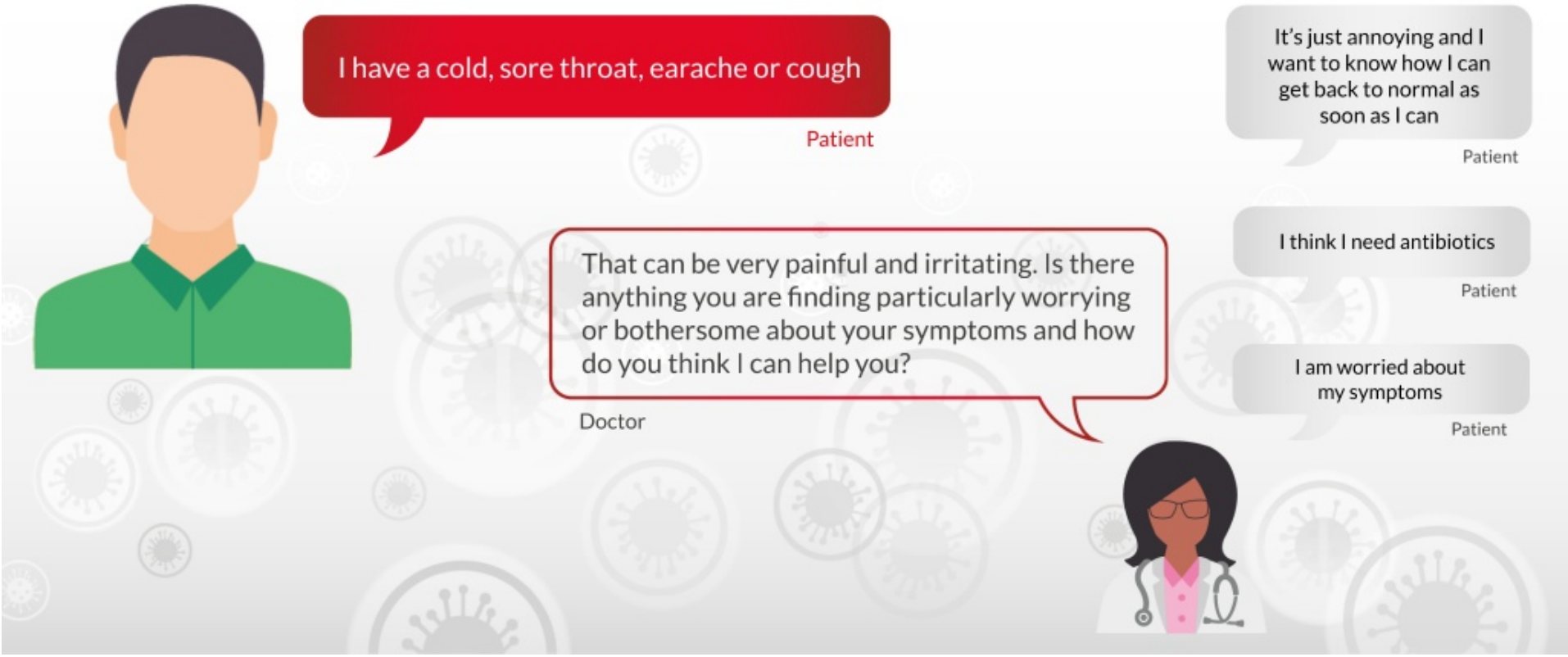
I AM A DOCTOR

Find out more about GRIP

Reference number: UK/CC-NHS/0818/0005g
Date of preparation: August 2018.


GRIP
GLOBAL RESPIRATORY INFECTION PARTNERSHIP
GP
RESPONSIBILITY TREATS BEST
STOP ANTIBIOTIC OVERUSE
1
ADDRESS PATIENT'S CONCERNS
2
BE VIGILANT – ASSESS SEVERITY
3
COUNSEL ON EFFECTIVE SELF-MANAGEMENT
GRIP 1,2,3 TREATMENT ALGORITHM FOR URTI
Trademark of Reckitt Benckiser | © Reckitt Benckiser August 2018

1 ADDRESS PATIENT'S CONCERNS



1 ADDRESS PATIENT'S CONCERNS

It's just annoying and I want to know how I can get back to normal as soon as I can

Patient

That's good to know. I first want to ask you about your specific symptoms and your general health (move to Step 2)

Doctor

1 ADDRESS PATIENT'S CONCERNS

I think I need antibiotics

Patient

I understand, but is there a particular reason you think antibiotics could help you?

Doctor

They worked last time I had an infection and so I think antibiotics will help

Patient

That's good to know. I first want to ask you about your specific symptoms and your general health (move to Step 2)

Doctor

1 ADDRESS PATIENT'S CONCERNS

I am worried about my symptoms

Patient

Can you please tell me why you are worried?

Doctor

My symptoms are severe and have lasted so long, and I hear there can be complications

Patient

That's good to know. I first want to ask you about your specific symptoms and your general health (move to Step 2)

Doctor

2 BE VIGILANT – ASSESS SEVERITY

Please could you describe your symptoms in more detail?

Are you experiencing:
- Sore throat
- Cough
- Earache
- Nasal congestion
- Runny nose
- Muscle aches
- Fever

Doctor

Next

2 BE VIGILANT – ASSESS SEVERITY

GP

How long have you had these symptoms? Is there anything in particular that is worrying you?

Doctor

I have a high fever (or other alert/red flag symptoms)

Patient

I have longstanding lung disease (or other risk factors)

Patient

Do you have other health problems or chronic diseases, or have been unwell recently, that you have not mentioned?

Doctor

No, nothing in particular is worrying me, I am generally healthy and I am just concerned about my cold, sore throat, earache or cough

Patient

I am also going to do a physical examination, if that is okay

Doctor

Red flag symptoms

Risk factors

2 BE VIGILANT – ASSESS SEVERITY

I have a high fever
(or other alert/red flag symptoms)

Patient

That's very helpful. From what you have said and/or the physical exam, I think it might be useful to do more checks/prescribe an antibiotic/ prescribe an antiviral

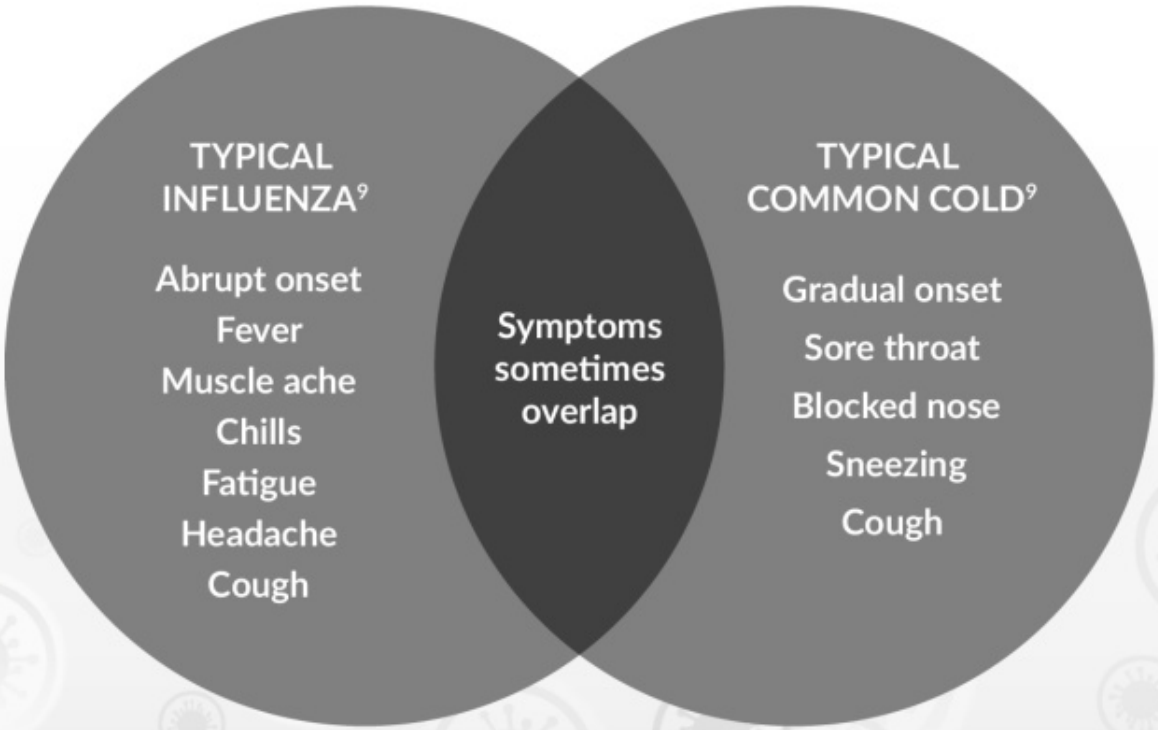
Doctor

How can I tell if it is influenza?

What are the risk factors for influenza complications?

Red flag symptoms

SYMPTOMS TYPICAL OF INFLUENZA AND COMMON COLD



References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

HIGH-RISK PATIENTS

Be alert to those patients at increased risk of influenza complications:[6,7]

- Elderly patients aged >65 years or young children <2 years or born prematurely[6,7]
- Immunocompromised patients[6]
- Patients with pre-existing conditions such as diabetes, cystic fibrosis, chronic lung disease, HIV[6,7]

Antiviral medication may be indicated for patients with confirmed or suspected influenza who are at risk of complications[8]

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

ALERT/RED FLAG SIGNS AND SYMPTOMS

Any of these red flag symptoms require further investigation:

- Coughing up blood[1]
- Shortness of breath, wheezing sounds, respiratory distress[1,2]
- Great difficulty swallowing, e.g. unable to swallow food[1]
- Drooling or muffled voice[2]
- Neck swelling[2] on one side of the neck, not related to the lymph nodes[3]
- Very high temperature (>39°C) or night sweats[3]

If the patient has three or more Centor criteria,[3-5] the likelihood of strep throat is increased and antibiotics may be indicated[3]

CRITERIA	POINTS
Absence of cough	1
Swollen and tender anterior cervical nodes	1
Temperature >38°C	1
Tonsillar exudates or swelling	1
Age	
3–14 years	1
15–44 years	0
45 years and older	-1
Cumulative score	_____

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

2 BE VIGILANT – ASSESS SEVERITY

I have longstanding lung disease (or other risk factors)

Patient

That's very helpful. From what you have said and/or the physical exam, I think it might be useful to do more checks/prescribe an antibiotic

Doctor

Risk factors

HIGH-RISK PATIENTS

Be alert to those patients at increased risk of influenza complications:[6,7]

- Elderly patients aged >65 years or young children <2 years or born prematurely[6,7]
- Immunocompromised patients[6]
- Patients with pre-existing conditions such as diabetes, cystic fibrosis, chronic lung disease, HIV[6,7]

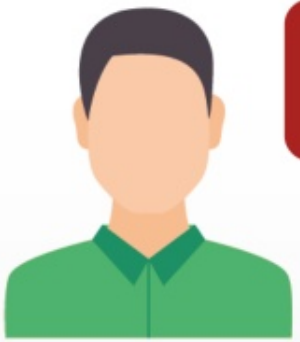
Antiviral medication may be indicated for patients with confirmed or suspected influenza who are at risk of complications[8]

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

2 BE VIGILANT – ASSESS SEVERITY



No, nothing in particular is worrying me, I am generally healthy and I am just concerned about my cold, sore throat, earache or cough

Patient

Okay. I didn't find anything worrying in your symptoms, medical history or the physical exam

Doctor

It sounds like you have an upper respiratory tract infection (URTI) (move to Step 3)

Doctor

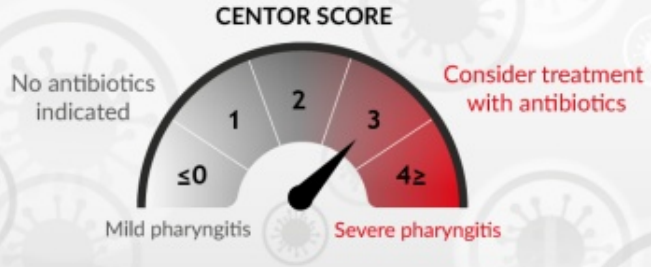
ALERT/RED FLAG SIGNS AND SYMPTOMS

Any of these red flag symptoms require further investigation:

- Coughing up blood[1]
- Shortness of breath, wheezing sounds, respiratory distress[1,2]
- Great difficulty swallowing, e.g. unable to swallow food[1]
- Drooling or muffled voice[2]
- Neck swelling[2] on one side of the neck, not related to the lymph nodes[3]
- Very high temperature (>39°C) or night sweats[3]

If the patient has three or more Centor criteria,[3-5] the likelihood of strep throat is increased and antibiotics may be indicated[3]

CRITERIA	POINTS
Absence of cough	1
Swollen and tender anterior cervical nodes	1
Temperature >38°C	1
Tonsillar exudates or swelling	1
Age	
3–14 years	1
15–44 years	0
45 years and older	-1
Cumulative score	_____



References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

HIGH-RISK PATIENTS

Be alert to those patients at increased risk of influenza complications:[6,7]

- Elderly patients aged >65 years or young children <2 years or born prematurely[6,7]
- Immunocompromised patients[6]
- Patients with pre-existing conditions such as diabetes, cystic fibrosis, chronic lung disease, HIV[6,7]

Antiviral medication may be indicated for patients with confirmed or suspected influenza who are at risk of complications[8]

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

URTI is usually caused by a virus, and the symptoms are caused by your immune system fighting the infection

Doctor

It's just annoying and I want to know how I can get back to normal as soon as I can

Patient

As you're otherwise healthy your immune system should be strong enough to tackle it, so we just need to help you get relief for your symptoms

Doctor

I think I need antibiotics

Patient

I am worried about my symptoms

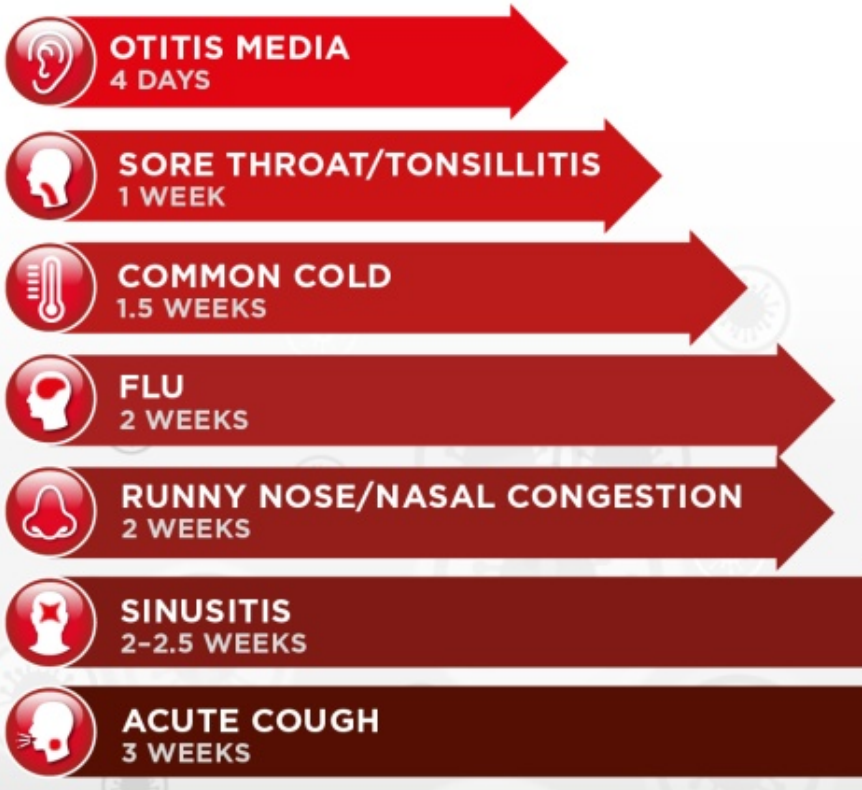
Patient

Earlier, you said:

Doctor

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

DURATION OF URTI SYMPTOMS



Most upper respiratory tract infections (URTIs) are self-limiting[10–12] and short-lived, and the duration of each symptom from its first occurrence varies[6,9,13–16]

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

I would like something to relieve my throat pain/ headache/earache/fever/cough/blocked nose

Patient

What treatment(s) have you used before? A product for one symptom or multiple symptoms? Tablets? Nasal spray? Ear drops? Lozenges? Throat spray? Cough syrup? Hot drinks? Is there a particular type of treatment that you prefer using?

Doctor

Treatment table

I prefer or have used [a specific format/product]

Patient

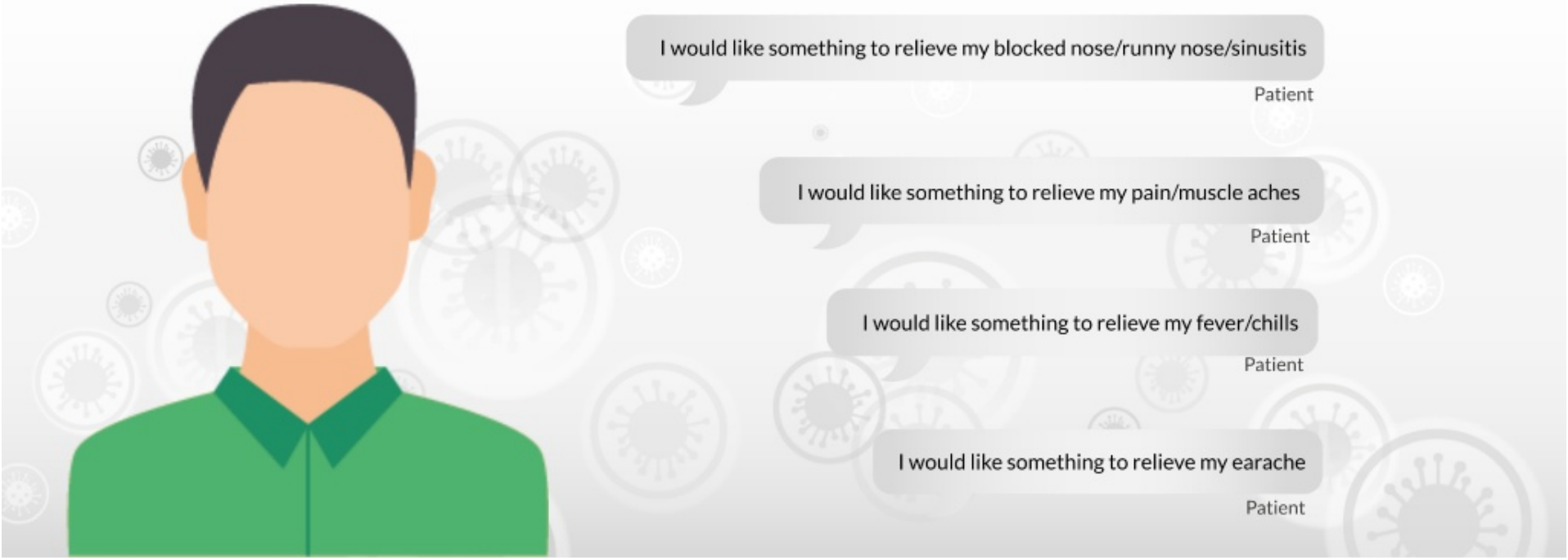
Next

From the way you have described your symptoms, and your preferences to treatment type, I think this symptomatic relief treatment [a specific product, based on treatment table] would be good for you

Doctor

SYMPTOMATIC TREATMENT OF URTIs

GP



Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Demulcent effect	Low dose, low risk of adverse effect	Notes
Local non-steroidal anti-inflammatory drug (NSAID) lozenge (e.g. flurbiprofen)	✓	✓[1–4,6]	✓[5]	✓[4]	✓[1–4,6]	Locally inhibits prostaglandin production[5] to target inflammation. Local anti-inflammatory[5] and pain relieving[1–4,6] action in the throat
Local NSAID throat spray (e.g. flurbiprofen)	✓	✓[7,8]	✓[5]	✗	✓[7,8]	Locally inhibits prostaglandin production[5] to target inflammation. Directly targets the throat[9] to provide local anti-inflammatory[5] and pain relieving[7,8] action
Medicated lozenge containing antiseptics/anaesthetics (e.g. amylmetacresol [AMC], 2,4-dichlorobenzyl alcohol [DCBA], hexylresorcinol, lidocaine)	✓	✓[10–13]	✗	✓[10]	✓[10, 13]	Lozenge dissolves slowly to release active ingredients.[14] AMC/DCBA and hexylresorcinol have antiseptic/antibacterial/antiviral actions and block voltage-gated Na+ channels in a local anaesthetic-like manner[11,14] Lidocaine is a local anaesthetic, blocks voltage-gated Na channels[11,14]
Oral NSAID tablet (e.g. ibuprofen)	✗	✓[15–17]	✓[16]	✗	✗	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever.[16] Slower acting[17] than local treatments[4,7]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✗	✗	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low-level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF DRY COUGH

Examples of formulations and active ingredients	Local delivery	Relieves acute cough	Notes
Cough suppressant lozenge/syrup (e.g. dextromethorphan)	✗	?[19]	Non-sedating opiate, and a component of many over-the-counter cough remedies.[20] Suppresses the cough reflex[20,21] although clinical evidence is conflicting.[19] Can cause hallucinations when taken in large doses[21]
Local menthol	✗	?[22]	Menthol by inhalation suppresses cough[20] and is a component of many over-the-counter cough remedies.[20] However, menthol has been reported to worsen cough in some people[22]
Sedative antihistamine syrup/tablet (e.g. diphenhydramine)	✗	?[19]	First-generation antihistamines suppress cough,[20] although clinical evidence is conflicting.[19] Can cause drowsiness, so may be best suited to nocturnal cough[20]
Oral antihistamine-decongestant-analgesic combination tablet	✗	?[23]	Clinical evidence is conflicting[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF BLOCKED NOSE/RUNNY NOSE/SINUSITIS

Examples of formulations and active ingredients	Local delivery	Relieves nasal congestion (blocked nose)	Relieves rhinorrhoea (runny nose)	Relieves acute rhinosinusitis	Notes
Decongestant nasal spray (e.g. pseudoephedrine)	✓	✓ [24,25]	—	—	Decongestants constrict swollen nasal blood vessels.[25,26] Due to risk of rebound congestion, nasal decongestants should not be used for longer than 5 days[24]
Anti-cholinergic nasal spray (e.g. ipratropium)	✓	✗ [27]	✓ [27]	—	Anti-cholinergics reduce the amount of mucus produced in the nose[27]
Corticosteroid nasal spray (e.g. fluticasone)	✓	—	—	✓ [28]	Mode of action for sinusitis uncertain, but likely local effect on inflammatory cells and their mediators[28]
Oral antihistamine tablet (e.g. diphenhydramine)	✗	? [29]	? [29]	—	Antihistamines reduce histamine-related nasal mucosal swelling and secretion[26]
Oral antihistamine-decongestant-analgesic combination tablet	✗	? [23]	? [23]	—	Evidence of limited efficacy for nasal congestion and rhinorrhoea, but it is not clear if these effects are clinically relevant[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF PAIN/MUSCLE ACHES

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF FEVER/CHILLS

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF EARACHE

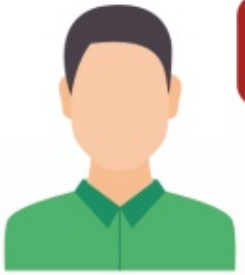
Examples of formulations and active ingredients	Local delivery	Relieves pain	Notes
Local anaesthetic ear drops (e.g. lignocaine)	✓	✓ [30,31]	Faster pain relief than oral analgesics[32]
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓ [33]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓ [33]	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT



I am not sure, are there other types of medicines that might help?

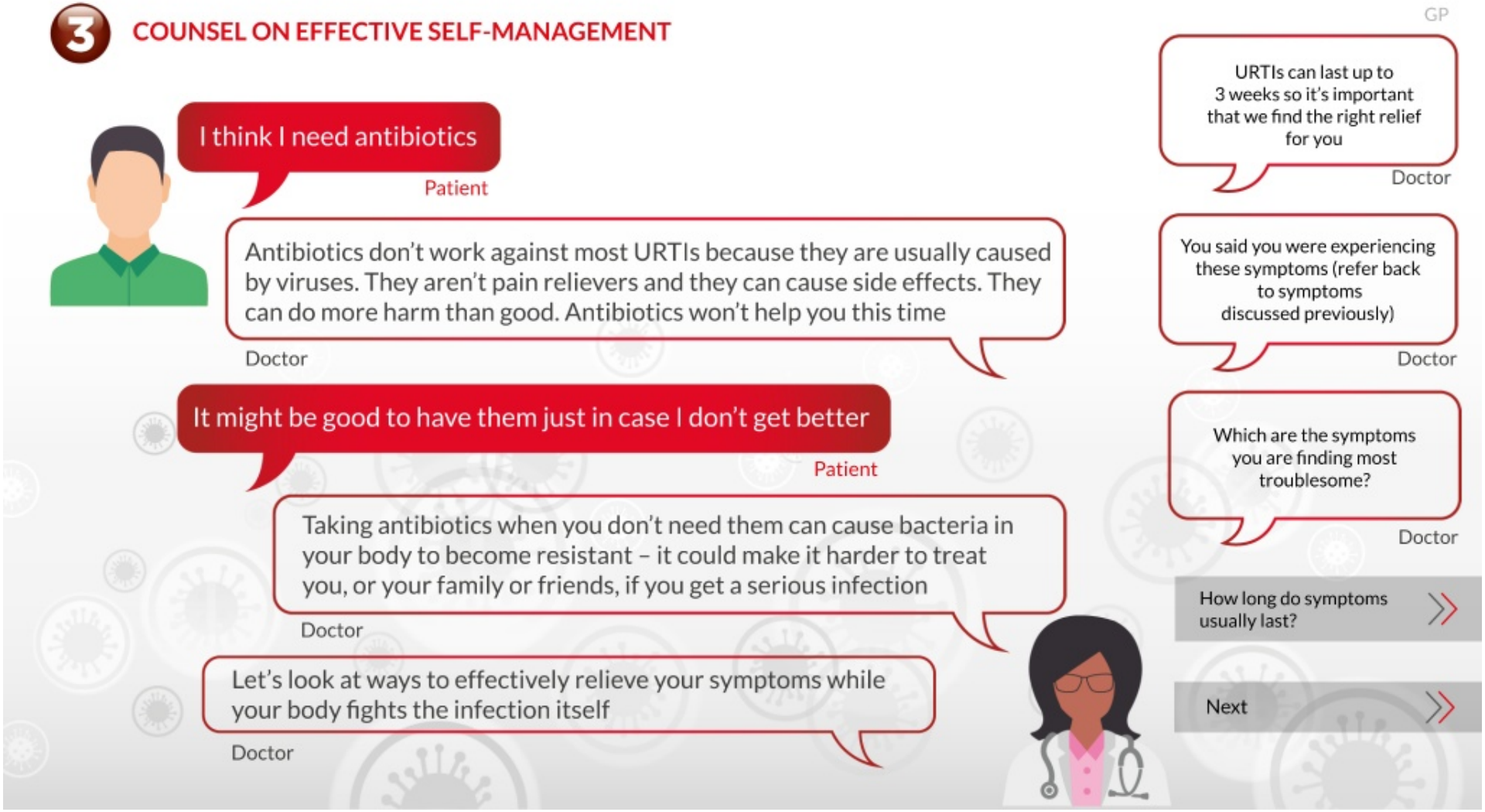
Patient

Antibiotics don't work against most URTIs because they are usually caused by viruses

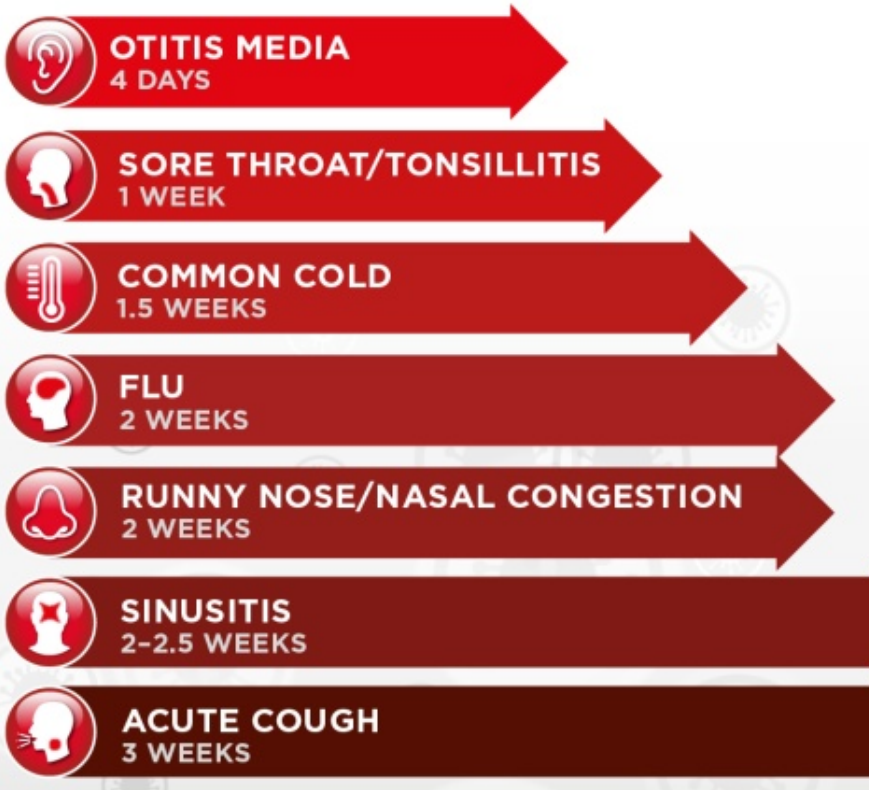
Doctor

Besides this treatment option make sure you take care of yourself. Drink plenty of fluids, rest and manage your symptoms with the right products to help you feel better fast. If symptoms worsen, last longer than expected or new symptoms develop come back and see me

Doctor


3
COUNSEL ON EFFECTIVE SELF-MANAGEMENT
GP
I think I need antibiotics
Patient
URTIs can last up to 3 weeks so it's important that we find the right relief for you
Doctor
Antibiotics don't work against most URTIs because they are usually caused by viruses. They aren't pain relievers and they can cause side effects. They can do more harm than good. Antibiotics won't help you this time
Doctor
You said you were experiencing these symptoms (refer back to symptoms discussed previously)
Doctor
It might be good to have them just in case I don't get better
Patient
Which are the symptoms you are finding most troublesome?
Doctor
Taking antibiotics when you don't need them can cause bacteria in your body to become resistant – it could make it harder to treat you, or your family or friends, if you get a serious infection
Doctor
How long do symptoms usually last?
Let's look at ways to effectively relieve your symptoms while your body fights the infection itself
Doctor
Next

DURATION OF URTI SYMPTOMS



Most upper respiratory tract infections (URTIs) are self-limiting[10–12] and short-lived, and the duration of each symptom from its first occurrence varies[6,9,13–16]

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

I would like something to relieve my throat pain/ headache/earache/fever/cough/blocked nose

Patient

What treatment(s) have you used before? A product for one symptom or multiple symptoms? Tablets? Nasal spray? Ear drops? Lozenges? Throat spray? Cough syrup? Hot drinks? Is there a particular type of treatment that you prefer using?

Doctor

Treatment table

I prefer or have used [a specific format/product]

Patient

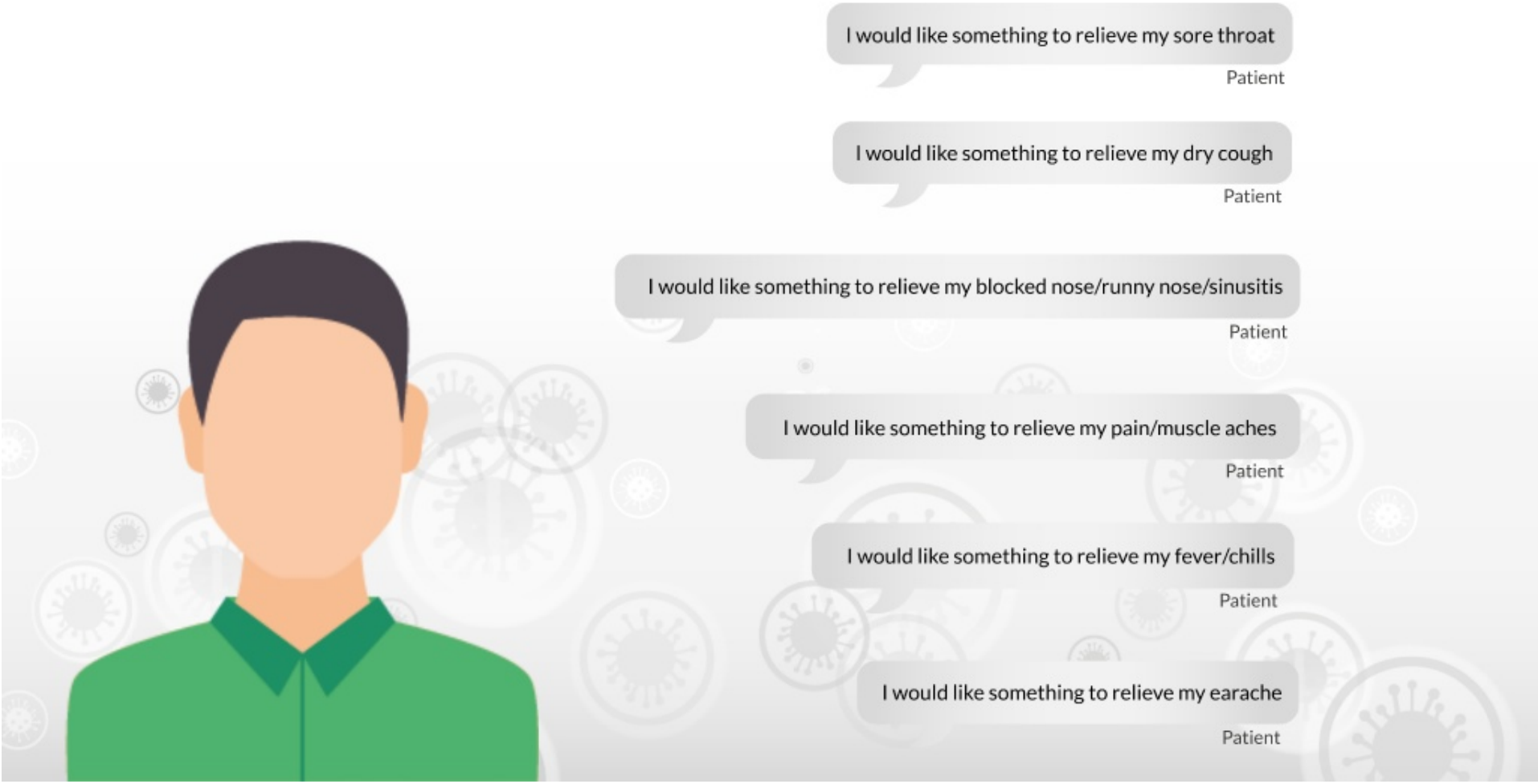
Next

From the way you have described your symptoms, and your preferences to treatment type, I think this symptomatic relief treatment [a specific product, based on treatment table] would be good for you

Doctor

SYMPTOMATIC TREATMENT OF URTIs

GP



SYMPTOMATIC TREATMENT OF SORE THROAT

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Demulcent effect	Low dose, low risk of adverse effect	Notes
Local non-steroidal anti-inflammatory drug (NSAID) lozenge (e.g. flurbiprofen)	✓	✓[1–4,6]	✓[5]	✓[4]	✓[1–4,6]	Locally inhibits prostaglandin production[5] to target inflammation. Local anti-inflammatory[5] and pain relieving[1–4,6] action in the throat
Local NSAID throat spray (e.g. flurbiprofen)	✓	✓[7,8]	✓[5]	✗	✓[7,8]	Locally inhibits prostaglandin production[5] to target inflammation. Directly targets the throat[9] to provide local anti-inflammatory[5] and pain relieving[7,8] action
Medicated lozenge containing antiseptics/anaesthetics (e.g. amylmetacresol [AMC], 2,4-dichlorobenzyl alcohol [DCBA], hexylresorcinol, lidocaine)	✓	✓[10–13]	✗	✓[10]	✓[10, 13]	Lozenge dissolves slowly to release active ingredients.[14] AMC/DCBA and hexylresorcinol have antiseptic/antibacterial/antiviral actions and block voltage-gated Na+ channels in a local anaesthetic-like manner[11,14] Lidocaine is a local anaesthetic, blocks voltage-gated Na channels[11,14]
Oral NSAID tablet (e.g. ibuprofen)	✗	✓[15–17]	✓[16]	✗	✗	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever.[16] Slower acting[17] than local treatments[4,7]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✗	✗	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low-level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF DRY COUGH

Examples of formulations and active ingredients	Local delivery	Relieves acute cough	Notes
Cough suppressant lozenge/syrup (e.g. dextromethorphan)	✗	?[19]	Non-sedating opiate, and a component of many over-the-counter cough remedies.[20] Suppresses the cough reflex[20,21] although clinical evidence is conflicting.[19] Can cause hallucinations when taken in large doses[21]
Local menthol	✗	?[22]	Menthol by inhalation suppresses cough[20] and is a component of many over-the-counter cough remedies.[20] However, menthol has been reported to worsen cough in some people[22]
Sedative antihistamine syrup/tablet (e.g. diphenhydramine)	✗	?[19]	First-generation antihistamines suppress cough,[20] although clinical evidence is conflicting.[19] Can cause drowsiness, so may be best suited to nocturnal cough[20]
Oral antihistamine-decongestant-analgesic combination tablet	✗	?[23]	Clinical evidence is conflicting[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF BLOCKED NOSE/RUNNY NOSE/SINUSITIS

Examples of formulations and active ingredients	Local delivery	Relieves nasal congestion (blocked nose)	Relieves rhinorrhoea (runny nose)	Relieves acute rhinosinusitis	Notes
Decongestant nasal spray (e.g. pseudoephedrine)	✓	✓ [24,25]	—	—	Decongestants constrict swollen nasal blood vessels.[25,26] Due to risk of rebound congestion, nasal decongestants should not be used for longer than 5 days[24]
Anti-cholinergic nasal spray (e.g. ipratropium)	✓	✗ [27]	✓ [27]	—	Anti-cholinergics reduce the amount of mucus produced in the nose[27]
Corticosteroid nasal spray (e.g. fluticasone)	✓	—	—	✓ [28]	Mode of action for sinusitis uncertain, but likely local effect on inflammatory cells and their mediators[28]
Oral antihistamine tablet (e.g. diphenhydramine)	✗	? [29]	? [29]	—	Antihistamines reduce histamine-related nasal mucosal swelling and secretion[26]
Oral antihistamine-decongestant-analgesic combination tablet	✗	? [23]	? [23]	—	Evidence of limited efficacy for nasal congestion and rhinorrhoea, but it is not clear if these effects are clinically relevant[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF PAIN/MUSCLE ACHES

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF FEVER/CHILLS

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF EARACHE

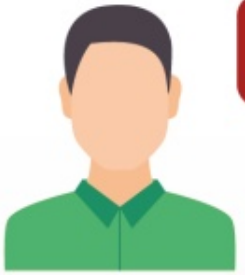
Examples of formulations and active ingredients	Local delivery	Relieves pain	Notes
Local anaesthetic ear drops (e.g. lignocaine)	✓	✓[30,31]	Faster pain relief than oral analgesics[32]
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[33]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[33]	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT



I am not sure, are there other types of medicines that might help?

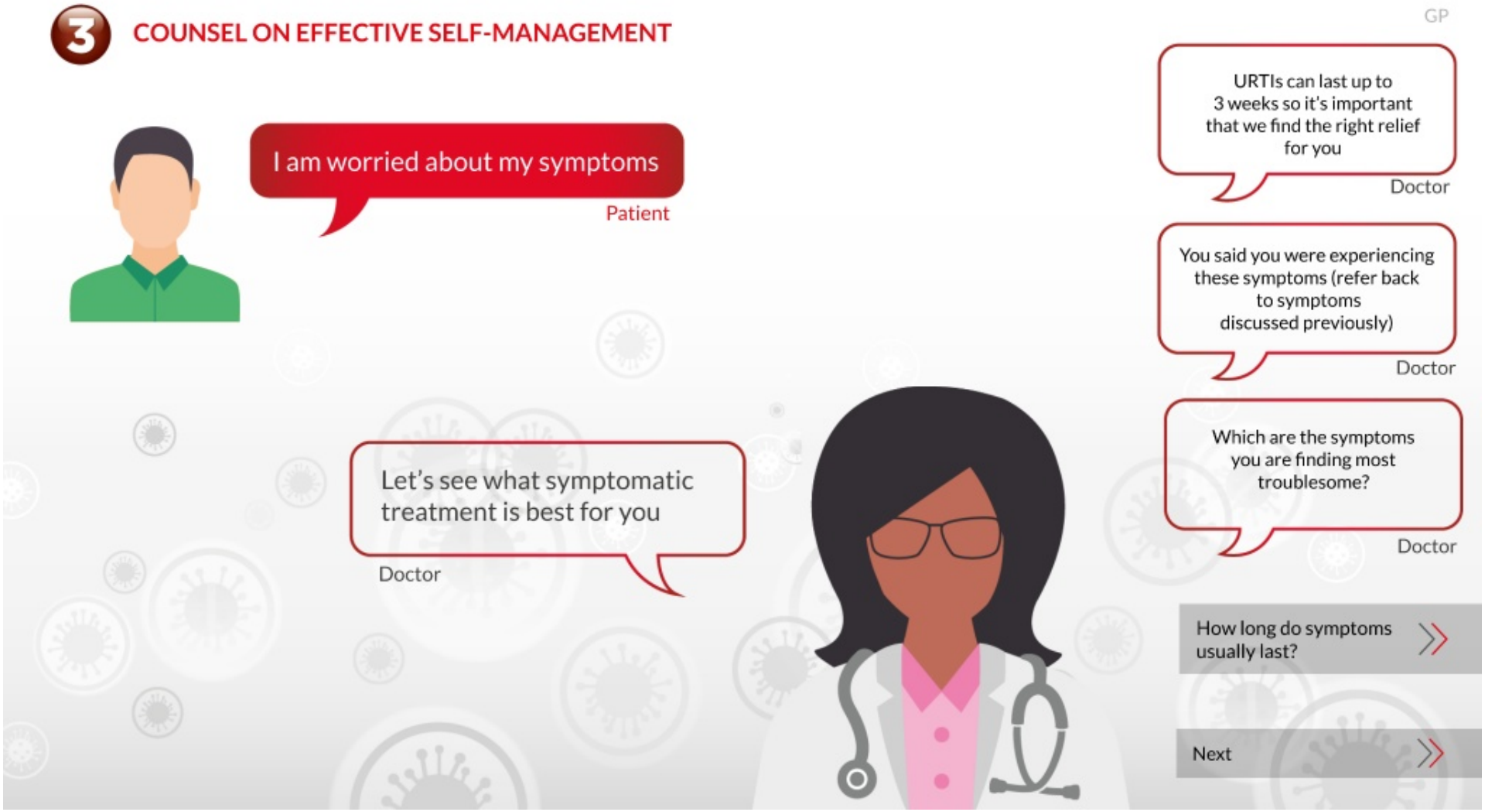
Patient

Antibiotics don't work against most URTIs because they are usually caused by viruses

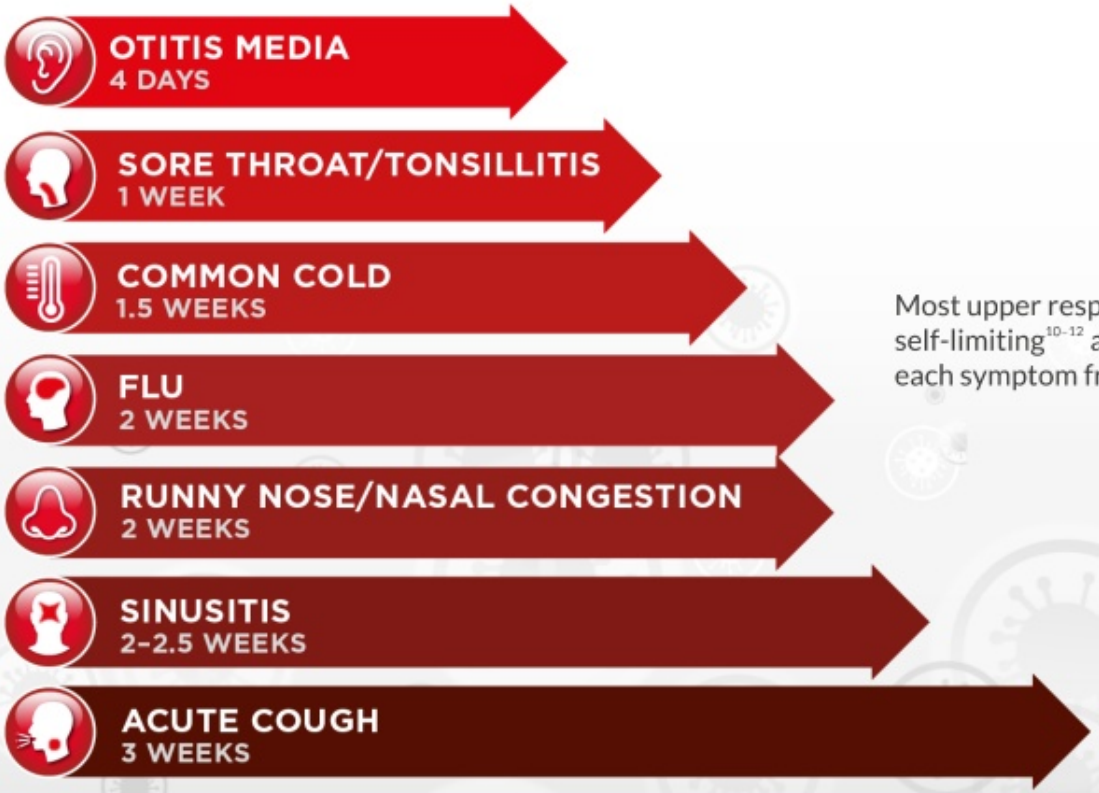
Doctor

Besides this treatment option make sure you take care of yourself. Drink plenty of fluids, rest and manage your symptoms with the right products to help you feel better fast. If symptoms worsen, last longer than expected or new symptoms develop come back and see me

Doctor


3
COUNSEL ON EFFECTIVE SELF-MANAGEMENT
GP
I am worried about my symptoms
Patient
URTIs can last up to 3 weeks so it's important that we find the right relief for you
Doctor
You said you were experiencing these symptoms (refer back to symptoms discussed previously)
Doctor
Which are the symptoms you are finding most troublesome?
Doctor
Let's see what symptomatic treatment is best for you
Doctor
How long do symptoms usually last?
Next

DURATION OF URTI SYMPTOMS



Most upper respiratory tract infections (URTIs) are self-limiting[10–12] and short-lived, and the duration of each symptom from its first occurrence varies[6,9,13–16]

References

REFERENCES

1. Van Duijn HJ, et al. Br J Gen Pract 2007;57:561–8.
2. MSD Manual. Sore throat. Available at: https://www.msdmanuals.com/en-gb/professional/ear-nose-and-throat-disorders/approach-to-the-patient-with-nasal-and-pharyngeal-symptoms/sore-throat (accessed June 2018).
3. Centor RM, Samlowski R. Am Fam Physician 2011;83:26–8.
4. Centor RM, et al. Med Decis Making 1981;1:239–46.
5. McIsaac WJ, et al. JAMA 2004;291:1587–95.
6. National Institute for Health and Care Excellence. Respiratory tract infections (self-limiting): prescribing antibiotics. Clinical guideline 69. July 2008. Available at: https://www.nice.org.uk/guidance/cg69 (accessed July 2018).
7. Centers for Disease Control and Prevention. People at high risk of developing flu-like complications. Available at: http://www.cdc.gov/flu/about/disease/high_risk.htm (accessed July 2018).
8. Centers for Disease Control and Prevention. Influenza antiviral medications: summary for clinicians. 2018. Available at: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm (accessed July 2018).
9. Centers for Disease Control and Prevention. Flu symptoms and complications. 2018. Available at: https://www.cdc.gov/flu/consumer/symptoms.htm (accessed July 2018).
10. Baron S. Medical Microbiology 4th edition. Chapter 93. Infections of the Respiratory System. 1996. University of Texas Medical Branch at Galveston, Galveston, Texas.
11. Worrall GJ. Can Fam Physician 2007;53:1961–2.
12. Kenealy T, Arroll B. Cochrane Database Syst Rev 2013;6:CD000247.
13. Spinks A, et al. Cochrane Database Syst Rev 2013;11:CD000023.
14. Macy E. Perm J 2012;16:61–6.
15. Gwaltney JM, et al. JAMA 1967;202:494–500.
16. Arruda E, et al. J Clin Microbiol 1997;35:2864–8.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT

I would like something to relieve my throat pain/ headache/earache/fever/cough/blocked nose

Patient

What treatment(s) have you used before? A product for one symptom or multiple symptoms? Tablets? Nasal spray? Ear drops? Lozenges? Throat spray? Cough syrup? Hot drinks? Is there a particular type of treatment that you prefer using?

Doctor

Treatment table

I prefer or have used [a specific format/product]

Patient

Next

From the way you have described your symptoms, and your preferences to treatment type, I think this symptomatic relief treatment [a specific product, based on treatment table] would be good for you

Doctor

SYMPTOMATIC TREATMENT OF URTIs

GP

I would like something to relieve my sore throat

Patient

I would like something to relieve my dry cough

Patient

I would like something to relieve my blocked nose/runny nose/sinusitis

Patient

I would like something to relieve my pain/muscle aches

Patient

I would like something to relieve my fever/chills

Patient

I would like something to relieve my earache

Patient

SYMPTOMATIC TREATMENT OF SORE THROAT

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Demulcent effect	Low dose, low risk of adverse effect	Notes
Local non-steroidal anti-inflammatory drug (NSAID) lozenge (e.g. flurbiprofen)	✓	✓ [1–4,6]	✓ [5]	✓ [4]	✓ [1–4,6]	Locally inhibits prostaglandin production[5] to target inflammation. Local anti-inflammatory[5] and pain relieving[1–4,6] action in the throat
Local NSAID throat spray (e.g. flurbiprofen)	✓	✓ [7,8]	✓ [5]	✗	✓ [7,8]	Locally inhibits prostaglandin production[5] to target inflammation. Directly targets the throat[9] to provide local anti-inflammatory[6] and pain relieving[7,8] action
Medicated lozenge containing antiseptics/anaesthetics (e.g. amylmetacresol [AMC], 2,4-dichlorobenzyl alcohol [DCBA], hexylresorcinol, lidocaine)	✓	✓ [10–13]	✗	✓ [10]	✓ [10, 13]	Lozenge dissolves slowly to release active ingredients.[14] AMC/DCBA and hexylresorcinol have antiseptic/antibacterial/antiviral actions and block voltage-gated Na+ channels in a local anaesthetic-like manner[11,14] Lidocaine is a local anaesthetic, blocks voltage-gated Na channels[11,14]
Oral NSAID tablet (e.g. ibuprofen)	✗	✓ [15–17]	✓ [16]	✗	✗	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever.[16] Slower acting[17] than local treatments[4,7]
Oral analgesic tablet (e.g. paracetamol)	✗	✓ [18]	✗	✗	✗	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low-level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF DRY COUGH

Examples of formulations and active ingredients	Local delivery	Relieves acute cough	Notes
Cough suppressant lozenge/syrup (e.g. dextromethorphan)	✗	?[19]	Non-sedating opiate, and a component of many over-the-counter cough remedies.[20] Suppresses the cough reflex[20,21] although clinical evidence is conflicting.[19] Can cause hallucinations when taken in large doses[21]
Local menthol	✗	?[22]	Menthol by inhalation suppresses cough[20] and is a component of many over-the-counter cough remedies.[20] However, menthol has been reported to worsen cough in some people[22]
Sedative antihistamine syrup/tablet (e.g. diphenhydramine)	✗	?[19]	First-generation antihistamines suppress cough,[20] although clinical evidence is conflicting.[19] Can cause drowsiness, so may be best suited to nocturnal cough[20]
Oral antihistamine-decongestant-analgesic combination tablet	✗	?[23]	Clinical evidence is conflicting[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF BLOCKED NOSE/RUNNY NOSE/SINUSITIS

Examples of formulations and active ingredients	Local delivery	Relieves nasal congestion (blocked nose)	Relieves rhinorrhoea (runny nose)	Relieves acute rhinosinusitis	Notes
Decongestant nasal spray (e.g. pseudoephedrine)	✓	✓ [24,25]	—	—	Decongestants constrict swollen nasal blood vessels.[25,26] Due to risk of rebound congestion, nasal decongestants should not be used for longer than 5 days[24]
Anti-cholinergic nasal spray (e.g. ipratropium)	✓	✗ [27]	✓ [27]	—	Anti-cholinergics reduce the amount of mucus produced in the nose[27]
Corticosteroid nasal spray (e.g. fluticasone)	✓	—	—	✓ [28]	Mode of action for sinusitis uncertain, but likely local effect on inflammatory cells and their mediators[28]
Oral antihistamine tablet (e.g. diphenhydramine)	✗	? [29]	? [29]	—	Antihistamines reduce histamine-related nasal mucosal swelling and secretion[26]
Oral antihistamine-decongestant-analgesic combination tablet	✗	? [23]	? [23]	—	Evidence of limited efficacy for nasal congestion and rhinorrhoea, but it is not clear if these effects are clinically relevant[23]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF PAIN/MUSCLE ACHES

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF FEVER/CHILLS

Examples of formulations and active ingredients	Local delivery	Relieves pain	Anti-inflammatory effect	Relieves fever	Notes
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[15,16]	✓[16]	✓[16]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation, and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[18]	✗	✓[16]	Paracetamol is thought to act on prostaglandins in the central nervous system.[18] It relieves pain[18] and fever[16] but has only low level anti-inflammatory action[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

SYMPTOMATIC TREATMENT OF EARACHE

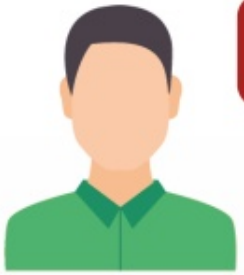
Examples of formulations and active ingredients	Local delivery	Relieves pain	Notes
Local anaesthetic ear drops (e.g. lignocaine)	✓	✓[30,31]	Faster pain relief than oral analgesics[32]
Oral non-steroidal anti-inflammatory drug (NSAID) tablet (e.g. ibuprofen)	✗	✓[33]	NSAIDs inhibit prostaglandin production throughout the body and in the central nervous system[15] to relieve pain, inflammation and fever[16]
Oral analgesic tablet (e.g. paracetamol)	✗	✓[33]	Paracetamol is thought to act on prostaglandins in the central nervous system[18] to relieve pain[18] and fever[16] but has only low level anti-inflammatory activity[18]

References

REFERENCES

1. Blagden M, et al. Int J Clin Pract 2002;56:95–100.
2. Watson N, et al. Int J Clin Pract 2000;54:490–6.
3. Benrimoj SI, et al. Clin Drug Invest 2001;21:183–93.
4. Schachtel B, et al. Pain 2014;155:422–8.
5. Sefia E, et al. Poster presented at the annual scientific meeting of the British Pain Society, 24–27 April 2007, Glasgow, UK.
6. Schachtel B, et al. Pain Pract 2016;16:6–176 [abstract].
7. Bychkova V, et al. Int J Clin Pharm 2017;39:208–341 [abstract].
8. de Looze F, et al. Eur J Gen Pract 2016;22:111–8.
9. Veale D, et al. Curr Drug Deliv 2017;14:725–33.
10. Wade AG, et al. BMC Fam Pract 2011;12:6.
11. Buchholz V, et al. Naunyn Schmiedebergs Arch Pharmacol 2009;380:161–8.
12. McNally, D et al. Int J Clin Pract 2010;64:194–207.
13. McNally, D et al. J Pharm Pharm Sci 2012;15:281–94.
14. Oxford JS, Leuwer M. J Clin Pract 2011;65:524–30.
15. Burian M, Geisslinger G. Pharmacol Ther 2005;107:139–54.
16. Rainsford KD. Inflammopharmacology 2009;17:275–342.
17. Schachtel BP, et al. Clin Pharmacol Ther 1994;55:464–70.
18. Graham GG, et al. Inflammopharmacology 2013;21:201–32.
19. Smith SM, et al. Cochrane Database Syst Rev 2014;11:CD001831.
20. Morice AH, et al. Thorax 2006;61(Suppl I):i1–24.
21. Dicpinigaitis PV, et al. Cough 2009;5:11.
22. Johnson D, et al. J Am Board Fam Med 2018;31:183–91.
23. De Sutter AI, et al. Cochrane Database Syst Rev 2012;2:CD004976.
24. Deckx L, et al. Cochrane Database Syst Rev 2016;10:CD009612.
25. Taverner D, Latte GJ. Cochrane Database Syst Rev 2007;1:CD001953.
26. Meltzer EO, et al. Int J Gen Med 2010;3:69–91.
27. AlBalawi ZH, et al. Cochrane Database Syst Rev 2013;6:CD008231.
28. Zalmanovici Trestioreanu A, Yaphe J. Cochrane Database Syst Rev 2013;12:CD005149.
29. De Sutter AI, et al. Cochrane Database Syst Rev 2015;11:CD009345.
30. Foxlee R, et al. Cochrane Database Syst Rev 2006;3:CD005657.
31. Bolt P, et al. Arch Dis Child 2008;93:40–4.
32. Prasad S, Ewigman B. J Fam Pract 2008 ;57:370–3.
33. Sjoukes A, et al. Cochrane Database Syst Rev 2016;12:CD011534.

3 COUNSEL ON EFFECTIVE SELF-MANAGEMENT



I am not sure, are there other types of medicines that might help?

Patient

Antibiotics don't work against most URTIs because they are usually caused by viruses

Doctor

Besides this treatment option make sure you take care of yourself. Drink plenty of fluids, rest and manage your symptoms with the right products to help you feel better fast. If symptoms worsen, last longer than expected or new symptoms develop come back and see me

Doctor


GRIP
GLOBAL RESPIRATORY
INFECTION PARTNERSHIP
RESPONSIBILITY
TREATS BEST
STOP ANTIBIOTIC OVERUSE
GRIP 1,2,3 TREATMENT
ALGORITHM FOR URTI
I AM A PHARMACIST
I AM A DOCTOR
Find out more about GRIP
Reference number: UK/CC-NHS/0818/0005g
Date of preparation: August 2018.
Reckitt Benckiser has funded and supported the development of this material, including review of content for code compliance. The views and opinions represent those of the Global Respiratory Infection Partnership (GRIP) and are not necessarily the views of Reckitt Benckiser as the sponsor.
Trademark of Reckitt Benckiser | © Reckitt Benckiser August 2018