

Patient name	<input style="width: 95%; height: 30px;" type="text"/>	Self-care advice provided	<input style="width: 95%; height: 30px;" type="checkbox"/>
Product(s) suggested / supplied	<input style="width: 95%; height: 30px;" type="text"/>	Patient advised to contact GP	<input style="width: 95%; height: 30px;" type="checkbox"/>

Your infection	Without antibiotics most are better by	How to look after yourself and your family	When to get help
<input type="checkbox"/> Middle-ear infection	8 days ¹	<ul style="list-style-type: none"> Have plenty of rest. Drink enough fluids to avoid feeling thirsty. Ask your local pharmacist to recommend medicines to help your symptoms or pain (or both). Fever is a sign the body is fighting the infection and usually gets better by itself in most cases. You can use paracetamol if you or your child are uncomfortable as a result of a fever. Use a tissue and wash your hands with soap to help prevent spread of your infection to your family, friends and others you meet. 	<p>If you or your child has any of these symptoms, are getting worse or are sicker than you would expect (even if your/their temperature falls), trust your instincts and seek medical advice urgently from NHS 111 or your GP. If a child under the age of 5 has any of symptoms 1–3 go to A&E immediately or call 999.</p> <ol style="list-style-type: none"> 1. If your skin is very cold or has a strange colour, or you develop an unusual rash. 2. If you have new feelings of confusion, or drowsiness, or have slurred speech. 3. If you have difficulty breathing. Signs that suggest breathing problems can be: <ul style="list-style-type: none"> breathing quickly turning blue around the lips and the skin below the mouth skin between or above the ribs getting sucked or pulled in with every breath 4. If you develop a severe headache and are sick. 5. If you develop chest pain. 6. If you have difficulty swallowing or are drooling. 7. If you cough up blood. 8. If you are passing little or no urine. 9. If you are feeling a lot worse. <p>Less serious signs that can usually wait until the next available medical appointment:</p> <ol style="list-style-type: none"> 10. If you are not starting to improve a little by the time given in 'Most are better by'. 11. Children with middle-ear infection: if fluid is coming out of their ears or they have new deafness. 12. Mild side effects such as diarrhoea: seek medical attention if you are concerned.
<input type="checkbox"/> Sore throat	7-8 days ^{1,2}		
<input type="checkbox"/> Sinusitis	14-21 days ³		
<input type="checkbox"/> Common cold	14 days ¹		
<input type="checkbox"/> Cough or bronchitis	21 days ⁴ (a cough caused by COVID-19 may differ)		
Other infection: days		
<p>If you think you may have COVID-19 then please visit www.gov.uk/coronavirus or www.nhs.uk for the latest guidance and information</p>			

- Colds, most coughs, sinusitis, ear infections, sore throats, and other infections often get better without antibiotics, as your body can usually fight these infections on its own.
- Taking any antibiotics makes bacteria that live inside your body more resistant. This means that antibiotics may not work when you really need them.
- Antibiotics can cause side effects such as rashes, thrush, stomach pains, diarrhoea, reactions to sunlight, other symptoms; or being sick if you drink alcohol with the antibiotic metronidazole.
- Find out more about how you can make better use of antibiotics and help keep this vital treatment effective by visiting www.nhs.uk/keepantibioticsworking



Never share antibiotics and always return any unused antibiotics to a pharmacy for safe disposal.

References and rationale

NOTE

The information contained in this leaflet resource relates to the following NICE guidelines

- [NG15 Antimicrobial stewardship: systems and processes for effective antimicrobial medicine use](#): 1.1.31, 1.1.33, 1.1.34
- [CG69 Respiratory tract infections \(self-limiting\): prescribing antibiotics](#): 1.4-1.6
- [NG63 Antimicrobial stewardship: changing risk-related behaviours in the general population](#): 1.3.2, 1.5.5 and 1.5.6

Our research with patients has indicated that they want to know the longest time it will take for their illness to improve, not the average duration. Discrepancies in the illness duration are because we report the time for 90% of patients to improve whereas NICE guidelines report an average improvement rate.

1. Thompson M, Vodicka TA, Blair PS, Buckley DI, Heneghan C, Hay AD. Duration of symptoms of respiratory tract infections in children: systematic review. *BMJ : British Medical Journal*. 2013;347 Available from: <http://www.bmj.com/content/bmj/347/bmj.f7027.full.pdf>

RATIONALE: A systematic review to determine durations of symptoms, post consultation, of earache, sore throat, cough (including acute cough, bronchiolitis, and croup), and common cold in children. 23 trials and 25 observational studies met inclusion criteria.

Ear Ache: Seven trials with 958 children and three observational studies with 451 children were included in the analysis. Based on pooled data results from these 10 studies, 90% of children's symptoms had resolved by 7-8 days.

Sore Throat: Six trials with 241 children and one observational study were included in the analysis. Among the four studies that reported mean duration, symptoms of sore throat lasted from two days to 6.7 days however researchers were unable to pool the data due to insufficient data at several time points and as such, were unable to calculate 90% of children's symptom resolution. As such, both Little's (8 days) and Thompson's (2 - 7 days) durations have been used for sore throat in order to account for both adults and children – thereby allowing the leaflet to be used in both adult and child consultations.

Common Cold: Based on the pooled data from five studies, by day 10 about 50% of children had improved. The researchers did not have sufficient data to determine the time at which 90% improved, but estimated this as about 15 days.

Bronchiolitis: Analysis included six trials of acute cough, croup or bronchiolitis with 700 children. Based on pooled data from four studies, 50% of children improved by day 13 and using this data, researchers estimate the time for 90% to improve researchers to be 25 days.

2. Little P, Williamson I, Warner G, Gould C, Gantley M, Kinmonth A. Open randomised trial of prescribing strategies in managing sore throat. *Bmj*. 1997;314(7082):722. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2126131/pdf/9116551.pdf>

RATIONALE: A randomised follow up to assess three prescribing strategies for sore throat - prescription for antibiotics for 10 days (group 1, 246 patients); no prescription (group 2, 230 patients); or prescription for antibiotics if symptoms were not starting to settle after three days (group 3; 238 patients). Eleven general practices in the South and West region (UK) of 716 patients aged 4 years and over with sore throat and an abnormal physical sign in the throat participated in the study. Findings demonstrated that prescribing antibiotics for sore throat only marginally affects the resolution of symptoms, with 90% of patients from all 3 groups showing symptom resolution around 8 days. Both Little's (8 days) and Thompson's (2 - 7 days) durations have been used for sore throat in order to account for both adults and children – thereby allowing the leaflet to be used in both adult and child consultations.

3. Williamson IG, Rumsby K, Bengt S, et al. Antibiotics and topical nasal steroid for treatment of acute maxillary sinusitis: a randomized controlled trial. *Jama*. 2007;298(21):2487-2496. Available from: http://jama.jamanetwork.com/data/journals/jama/5251/joc70129_2487_2496.pdf

RATIONALE: A double-blind, randomized, placebo-controlled factorial trial to determine the effectiveness of amoxicillin and topical budesonide in acute maxillary sinusitis. 240 adults (aged >16 years) with acute nonrecurrent sinusitis at 58 family practices (74 family physicians) between November 2001 and November 2005 were randomised into one of four groups - active antibiotic and active topical steroid, active antibiotic and placebo topical steroid, placebo antibiotic and active topical steroid, and placebo antibiotic and placebo topical steroid. According to graphical data, approx 75% of patients had full symptom resolution at day 14 without antibiotic therapy. As the study only collected data for 14 days researchers suggest that for 90% of participants to reach full symptom resolution would take 2 - 3 weeks.

4. Little P, Rumsby K, Kelly J, et al. Information leaflet and antibiotic prescribing strategies for acute lower respiratory tract infection: a randomized controlled trial. *Jama*. 2005;293(24):3029-3035. Available from: <http://jama.jamanetwork.com/data/journals/jama/4981/joc50041.pdf>

RATIONALE: A randomized controlled trial conducted from August 18, 1998, to July 30, 2003, of 807 patients presenting in a primary care setting with acute uncomplicated lower respiratory tract infection. The study examined the effectiveness of three prescribing strategies (Immediate-, delayed- and no antibiotics) and a leaflet for acute lower respiratory tract infections. Findings demonstrate that 90% of participants experienced full symptom resolution after 21 days regardless of prescribing strategy.