

Clinical audit: Targeted use of antibiotics

Improving clinical practice for better patient health

How are you using antibiotics for:

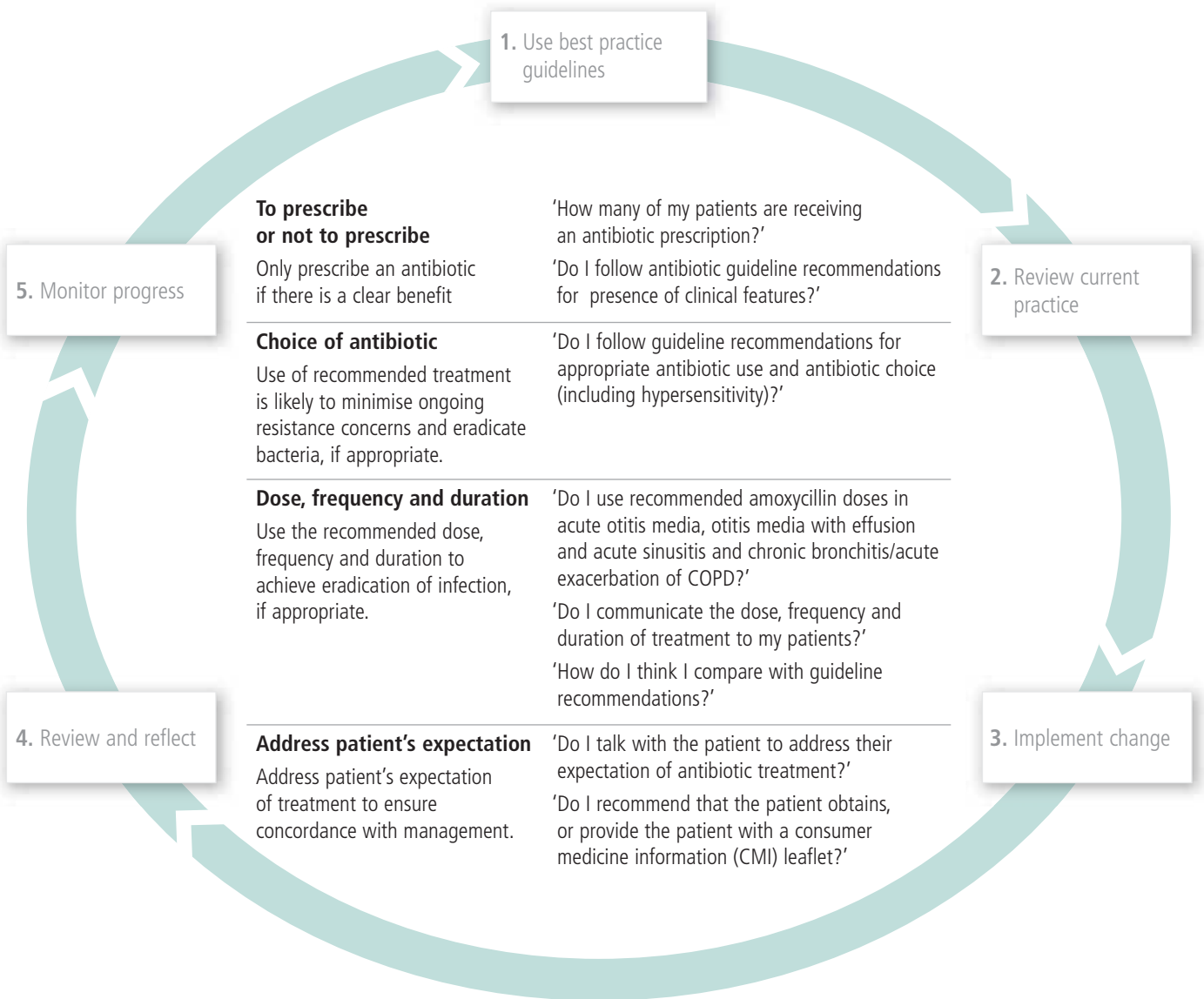
Common cold, rhinosinusitis (non-specific URTI), acute otitis media (AOM), otitis media with effusion (glue ear), pharyngitis/tonsillitis, acute sinusitis, acute bronchitis, acute exacerbation of COPD, bites, or cellulitis.

NPS has applied for clinical audit points in the 2005-07 triennium of the RACGP QA&CPD Program and the ACCRM PDP. Points are only awarded to participants who complete the review phase.

This audit qualifies for the Quality Prescribing Initiative of the Practice Incentives Program (May 2007 to April 2008).

Best practice in antibiotic use

This clinical audit will assist you to compare your clinical practice with these best practice principles for prescribing antibiotics in upper respiratory tract infections, acute exacerbations of COPD and chronic bronchitis, bites and cellulitis.





National Prescribing Service Limited



Clinical audit enrolment form

Targeted use of antibiotics

To enrol

Fill out the form below then return to NPS. Enrolments must be received at NPS by **Friday 20 April 2007**.

Submission date for your audit

Completed clinical audit forms must be submitted to NPS by Friday 25 May 2007. Unfortunately, late submissions cannot be accepted.

For more information:

Holly Parsons } Phone: 02 8217 8700
 } Fax: 02 9211 7579
 } Email: info@nps.org.au

Enrol by Friday 20 April 2007.

Fax this form to: 02 9211 7579

OR Telephone: 02 8217 8700

**OR Post to: PO Box 1147,
Strawberry Hills
NSW 2012**

Your free audit pack will be forwarded by mail.

Participant details:

Please use BLOCK LETTERS

Family name	<input type="text"/>		
Given name	<input type="text"/>		
Postal address	<input type="text"/>		
Town or Suburb	<input type="text"/>		
State or Territory	<input type="text"/>	Postcode	<input type="text"/>
Phone no.	(<input type="text"/>) <input type="text"/>	Prescriber no.	<input type="text"/>
Fax no.	(<input type="text"/>) <input type="text"/>	Provider no.	<input type="text"/>

After you have enrolled, your free audit pack will be posted to you. To see a sample audit form before enrolling, visit our website at www.nps.org.au/healthpro. Enrolments must be received at NPS by **Friday 20 April 2007**.

NPS adheres to the National Privacy Principles contained in the Privacy Act 1988 (Cwth). All personal information collected by NPS will be used only for mailing of NPS materials relating to this audit and/or evaluation purposes.

NPS is an independent, non-profit organisation for Quality Use of Medicines, funded by the Australian Government Department of Health and Ageing.

Clinical audit guide: Targeted use of antibiotics

Improving clinical practice for better patient health

How are you using antibiotics for:

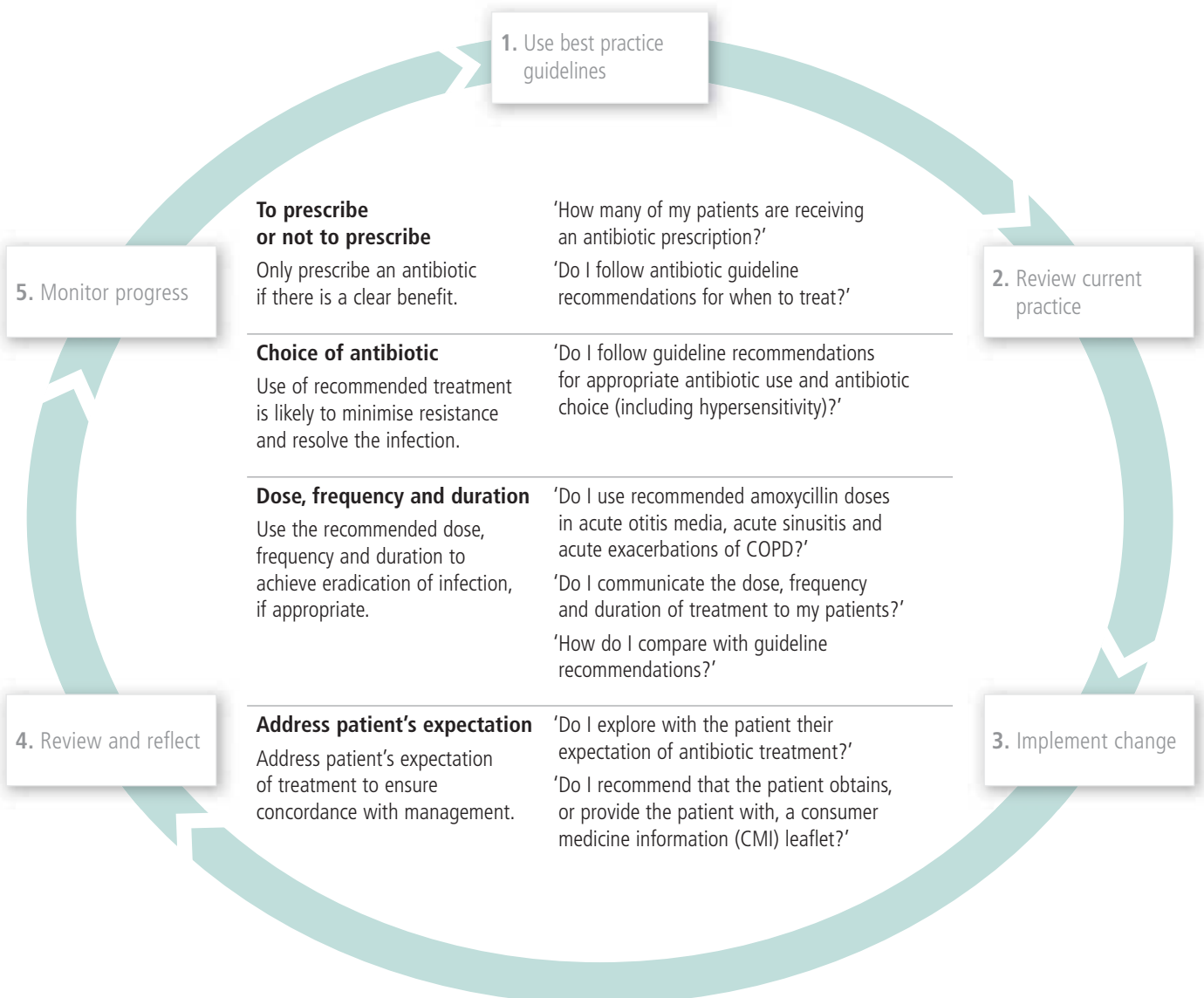
Common cold, rhinosinusitis (non-specific URTI), acute otitis media (AOM), pharyngitis/tonsillitis, acute sinusitis, acute bronchitis, acute exacerbations of COPD, bites or cellulitis.

NPS has applied for clinical audit points in the 2005–07 triennium of the RACGP QA&CPD Program, total points for steps 1–5: 30 (Category 1), and the ACRRM PDP, 27 clinical audit points (including 20 mandatory points). Points are awarded only to participants who complete the review phase.

This audit is recognised for the Quality Prescribing Initiative of the Practice Incentives Program (May 2007 to April 2008).

Best practice in antibiotic use

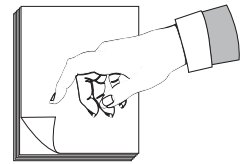
This clinical audit will assist you to compare your clinical practice with these best practice principles for prescribing antibiotics in upper respiratory tract infections, acute exacerbations of COPD, acute bronchitis, bites and cellulitis.



Notes for clinical audit form

Additional information to assist you to review your management.

Please tear off each section. *Submission cover sheet* and clinical audit forms are to be returned to NPS. Please tear off audit forms carefully.



Patient visit details

(Q3) Principal diagnosis

Mark the main type of infection diagnosed at this visit.

Please specify if the patient has any co-morbidities or characteristics that may have implications for antibiotic selection, doses or administration (e.g. renal or hepatic impairment, difficulty swallowing).

(Q4) Symptomatic management

Symptomatic management includes:

for respiratory infections – rest, fluids and medications such as decongestants or simple analgesics

for severe cellulitis – rest and elevation of affected area.¹

Copies of the NPS *Symptomatic management pad* for acute URTIs and acute bronchitis are available to assist in providing advice to patients. The free pads are available via the order form in the *Prescribing Practice Review* or by telephoning NPS on 02 8217 8700.

(Q5) Antibiotic prescribed

Where amoxicillin was prescribed, give the dose and frequency used. Doses recommended in *Therapeutic Guidelines: Antibiotic, 2006* for some indications, such as otitis media, may differ from the product information.

(Q6) Drug hypersensitivity/adverse reactions

Hypersensitivity occurs in up to 10% of people receiving a penicillin. A minority of these reactions are immediate hypersensitivity reactions. Anaphylactic responses occur in 0.01% of penicillin courses and 10% of these are fatal.¹

Patient education and management

(Q7) Delayed prescriptions

Mark whether the prescription is to be filled immediately or if it should be delayed until required. Asking patients to delay filling an antibiotic prescription unless their symptoms worsen, or do not improve after several days, can reduce antibiotic use.

Patients given a delayed prescription for acute otitis media did not have a different clinical course, or a higher risk of serious illness, compared with patients given an immediate prescription.²

(Q11–14)

The light and dark green shading in this section indicates management that is consistent with guidelines. Use this shading to review your prescribing.

(Q11) Principal diagnosis

Mark only one.

(Q12) Clinical features

Mark if any of the clinical features listed in the dark green shaded area for the principal diagnosis were present. Guidelines recommend antibiotics be considered for patients with these features.

If the clinical features outlined do not apply:

Mark the box 'clinical features other than above' in the light green shaded area. For example, if a patient with acute sinusitis has facial pain with discharge of only 2 days duration, not > 7–10 days as indicated.

(Q13) Antibiotic(s) prescribed

If an antibiotic(s) was indicated, was a recommended antibiotic(s) prescribed?

The antibiotics recommended by guidelines are in the dark green shaded areas.

If the antibiotic prescribed is not listed: Some clinical situations justify prescribing alternative antibiotics to those listed in the dark green shaded area. Mark 'other antibiotic prescribed' in the white area and record the reason for selecting the antibiotic prescribed (e.g. drug allergy or adverse reaction to first-line drugs, treatment failure in this patient using first-line drugs, pregnancy or lactation).

(Q14) Duration

The duration of antibiotic therapy recommended in guidelines is shaded in dark green. If the duration you used is not listed as a possible response, mark 'other' in the white area.

Compare prescribing with guidelines

(Q15) Use the shading in the table to compare your responses to guideline recommendations

Indicate if current management was consistent with guideline recommendations by marking 'yes' or 'no'.

To be consistent with guidelines, for the principal diagnosis indicated responses marked in Q12–14 must be either wholly in the light green shaded areas OR wholly in the dark green shaded areas.

For example:

1. Management consistent with guidelines

<input checked="" type="checkbox"/> acute exacerbations of COPD	<input checked="" type="checkbox"/> infective exacerbations with purulent sputum plus increased sputum volume and/or increased dyspnoea	<input checked="" type="checkbox"/> amoxicillin <input type="checkbox"/> doxycycline*	<input checked="" type="checkbox"/> 5 days
		<input type="checkbox"/> other antibiotic prescribed Reason _____	<input type="checkbox"/> other
	<input type="checkbox"/> clinical features other than above	<input type="checkbox"/> no antibiotic	<input type="checkbox"/> N/A

2. Management NOT consistent with guidelines

Responses marked across the light green and dark green shaded areas or across both shaded and white areas or across different rows are NOT considered consistent with the guidelines.

For example:

<input checked="" type="checkbox"/> acute exacerbations of COPD	<input type="checkbox"/> infective exacerbations with purulent sputum plus increased sputum volume and/or increased dyspnoea	<input checked="" type="checkbox"/> amoxicillin <input type="checkbox"/> doxycycline*	<input type="checkbox"/> 5 days
		<input type="checkbox"/> other antibiotic prescribed Reason _____	<input checked="" type="checkbox"/> other
	<input checked="" type="checkbox"/> clinical features other than above	<input type="checkbox"/> no antibiotic	<input type="checkbox"/> N/A

Generic and brand names for selected antibiotics

	Generic	Brand name		Generic	Brand name
Penicillins	amoxicillin	Alphamox, Amohexal, Amoxil, Amoxil Duo, Bgramin, Cilamox, Maxamox, Moxacin	Cephalosporins	cefaclor	Aclor, Ceclor, Ceclor CD, Karlor, Karlor CD, Keflor, Keflor CD, Ozcef
	amoxicillin+ clavulanic acid	Augmentin, Augmentin Duo, Augmentin Duo Forte, Clamohehexal, Clamohehexal Duo, Clamohehexal Duo Forte, Clamoxyl, Clamoxyl Duo, Clamoxyl Duo Forte, Clavulin, Clavulin Duo, Clavulin Duo Forte, Curam		cefuroxime	Zinnat
				cephalexin	Cilex, Ialex, Ibilex, Keflex, Rancef, Sporahehexal
	dicloxacillin	Diclosil, Dicloxsig, Distaph	Tetracyclines	doxycycline	Doryx, Doxsig, Doxy, Doxyhexal, Doxylin, Frakas, Vibramycin
	flucloxacillin	Flopen, Floxapen, Floxig, Staphylex		Macrolides	azithromycin
	penicillin V (phenoxymethyl-penicillin)	Abbecillin-V, Abbecillin-VK, Cilicaine V, Cilicaine VK, Cilopen VK, LPV, Penhexal VK	clarithromycin		Clarac, Clarihexasal, Clarithro, Kalixocin, Klacid
erythromycin			EES, E-Mycin, Eryc		
procaine penicillin	Cilicaine	Other	trimethoprim and sulfamethoxazole (co-trimoxazole)	Bactrim, Resprim, Septrin	

Prepared February 2007 from MIMS

Summary of *Therapeutic Guidelines: Antibiotic, 2006*¹ for antibiotic treatment in selected respiratory and skin infections

Are antibiotics required for this condition?	Treatment options		
Common cold, rhinosinusitis (non-specific upper respiratory tract infection)	Symptomatic treatment only		
Acute bronchitis Mostly viral, therefore antibiotics not required.	Symptomatic treatment only (except in more severe illness, when pneumonia should be considered)		
Acute exacerbations of COPD <ul style="list-style-type: none"> Exacerbations are often due to viral or non-infective causes and antibiotics are only occasionally indicated. Antibiotics are only effective when symptoms include purulent sputum plus increased sputum volume and/or increased dyspnoea.^{3,4} Antibiotics other than those listed are not superior or recommended. 	Antibiotics of first choice (if decision to treat with antibiotics)		
	Patients without penicillin hypersensitivity	Patients with penicillin hypersensitivity*	Duration
1 amoxicillin, 8-hourly adult: 500 mg orally OR 1 doxycycline[#], 12-hourly adult: 100 mg orally	doxycycline[#], 12-hourly adult: 100 mg orally	5 days	
Pharyngitis/tonsillitis <ul style="list-style-type: none"> Antibiotics are not needed for most general practice patients with sore throat. 90% of placebo and treated patients are symptom free at one week. Use antibiotics for: tonsillitis displaying the 4 diagnostic features suggesting <i>Streptococcus pyogenes</i> infection ⁵ ; patients aged 2–25 years in some indigenous communities in central and northern Australia and other communities at risk of acute rheumatic fever; existing rheumatic heart disease; scarlet fever ; peritonsillar cellulitis or abscess (i.e. quinsy – requires hospital treatment).	penicillin V, 12-hourly (phenoxymethylpenicillin) adult: 500 mg orally child: 10 mg/kg (up to 500 mg) orally	roxithromycin adult: 300 mg orally, daily child: 4 mg/kg (up to 150 mg) orally, 12-hourly	10 days
Acute otitis media (AOM) Antibiotics provide modest benefit – around 15 children require treatment at first presentation to prevent one child experiencing pain at 2 to 7 days. Children with systemic features (vomiting and fever) <ul style="list-style-type: none"> Antibiotic therapy may be indicated if fever and vomiting are marked when the patient first presents. Children without systemic features (vomiting and fever) <ul style="list-style-type: none"> In children < 6 months, treat with antibiotics. Early review (≤ 24 hours) is essential if diagnosis uncertain. In children 6 months to 2 years, treat symptomatically initially and consider delaying antibiotics for 24 hours. Follow up after 24 hours by telephone or visit is essential for assessment and possible antibiotics or referral. In children ≥ 2 years, treatment is symptomatic for the first 2 days. Reassess and consider antibiotics if symptoms persist. 	amoxicillin, 8-hourly adult: 500 mg orally child: 15 mg/kg (up to 500 mg) orally OR (if compliance is an issue) amoxicillin, 12-hourly adult: 1000 mg orally child: 30 mg/kg (up to 1000 mg) orally <i>If poor response to amoxicillin</i> amoxicillin+clavulanic acid for 5–7 days, 8-hourly** adult: 875+125 mg orally child: 22.5+3.2 mg/kg (up to 875+125 mg) orally	1 cefuroxime[†], 12-hourly adult: 500 mg orally child: 10 mg/kg (up to 500 mg) orally (no paediatric preparation available) OR 2 cefaclor[†], 8-hourly adult: 250 mg orally child: 10 mg/kg (up to 250 mg) orally	5 days
Acute sinusitis <ul style="list-style-type: none"> Antibiotics are not routinely needed as acute bacterial sinusitis follows upper respiratory tract infection in only 0.5–5% of cases. Sinusitis improves after 2 weeks in around 70% of patients without antibiotics. Consider antibiotics for severe sinusitis with at least 3 of the following: <ul style="list-style-type: none"> mucopurulent nasal discharge > 7–10 days poor response to decongestants facial pain tenderness over the sinuses tenderness on percussion of maxillary molar and premolar teeth. 	amoxicillin, 8-hourly adult: 500 mg orally child: 15 mg/kg (up to 500 mg) orally <i>If poor response to antibiotic of first choice</i> amoxicillin+clavulanic acid for 7–14 days, 8-hourly** adult: 875+125 mg orally child: 22.5+3.2 mg/kg (up to 875+125 mg) orally	1 cefuroxime[†], 12-hourly adult: 500 mg orally child: 10 mg/kg (up to 500 mg) orally (no paediatric preparation available) OR 2 cefaclor[†] adult: 375 mg orally, 12-hourly child: 10 mg/kg (up to 250 mg) orally, 8-hourly OR 2 doxycycline[#], daily adult: 100 mg orally child > 8 years: 2.5 mg/kg (up to 100 mg) orally	5–7 days
		<i>Immediate penicillin hypersensitivity</i> use doxycycline as above.	

Are antibiotics required for this condition?	Treatment options		
Bites Antibiotics may not be necessary in mild wounds with: <ul style="list-style-type: none"> no established infection, and where joints and tendons are not involved, and where adequate debridement and irrigation are possible, and the wound is seen within 8 hours. Treat wounds with high infection risk, such as: <ul style="list-style-type: none"> delayed presentation (\geq 8 hours) puncture wounds unable to be debrided adequately hand, feet or face wounds bone, joint or tendon involvement immunocompromised patient. Take wound swab for obviously infected wounds. Modify therapy according to Gram stain and culture.	Antibiotics of first choice (if decision to treat with antibiotics)		Duration
	Patients without penicillin hypersensitivity amoxicillin+clavulanic acid, 12-hourly adult: 875+125 mg orally child: 22.5+3.2 mg/kg (up to 875+125 mg) orally	Patients with penicillin hypersensitivity* metronidazole, 12-hourly adult: 400 mg orally child: 10 mg/kg (up to 400 mg) orally PLUS EITHER 1 ceftriaxone[†], daily adult: 1 g IV child: 25 mg/kg (up to 1 g) IV OR 2 cefotaxime[†], 8-hourly adult: 1 g IV child: 25 mg/kg (up to 1 g) IV <i>Immediate penicillin hypersensitivity</i> metronidazole, 12-hourly adult: 400 mg orally child: 10 mg/kg (up to 400 mg) orally PLUS EITHER 1 doxycycline[#], daily adult: first dose 200 mg orally, then 100 mg orally child > 8 years: first dose 5 mg/kg (up to 200 mg) orally, then 2.5 mg/kg (up to 100 mg) orally OR 2 trimethoprim+sulfamethoxazole, 12-hourly adult: 160+800 mg orally child: 4+20 mg/kg (up to 160+800 mg) orally OR 3 ciprofloxacin, 12-hourly adult: 500 mg orally child: 10 mg/kg (up to 500 mg) orally	5 days For severe and penetrating injuries usually 14 days (IV + oral). If bones, joints and/or tendons are involved, a longer duration is necessary.
Cellulitis For mild, early cellulitis where <i>S. pyogenes</i> is confirmed or suspected due to clinical presentation (e.g. spontaneous rapidly spreading cellulitis) or local disease patterns (e.g. indigenous communities in central and northern Australia) use penicillin V or procaine penicillin. (A) Treat other mild early cellulitis with di/flucloxacillin (B) — covers <i>Staphylococcus aureus</i> and <i>S. pyogenes</i> — unless other causative organisms are suspected (e.g. water-related infections, immunocompromised patients). For severe cellulitis intravenous therapy is required. (See <i>Therapeutic Guidelines: Antibiotic 2006</i>)	(A) 1 penicillin V, 6-hourly (phenoxymethylpenicillin) adult: 500 mg orally child: 10 mg/kg (up to 500 mg) orally OR (A) 1 procaine penicillin, IM daily adult: 1.5 g child: 50 mg/kg (up to 1.5 g) (B) di/flucloxacillin, 6-hourly adult: 500 mg orally child: 12.5 mg/kg (up to 500 mg) orally	cephalexin[†], 6-hourly adult: 500 mg orally child: 12.5 mg/kg (up to 500 mg) orally <i>Immediate penicillin hypersensitivity</i> clindamycin, 8-hourly adult: 450 mg orally child: 10 mg/kg (up to 450 mg) orally	10 days for penicillin V. At least 3 days for procaine penicillin. 7–10 days for di/flucloxacillin, cephalexin and clindamycin.

* Hypersensitivity occurs in up to 10% of people receiving penicillins; anaphylaxis occurs in 0.01%.¹ Intolerance due to common adverse effects such as diarrhoea and nausea may not be due to hypersensitivity.

** Note: not included in product information. The usual dosage frequency is 12-hourly. The 8-hourly regimen is used for increased antimicrobial activity.

Do not use in children \leq 8 years old or in pregnancy/lactation.

§ The 4 diagnostic features suggestive of *S. pyogenes* infection are: fever > 38 °C, tender cervical lymphadenopathy, tonsillar exudate and no cough.

† Between 3 and 10% of patients who are hypersensitive to penicillin exhibit cross-reactivity with cephalosporins. Cephalosporins are contraindicated if there is a history of

an immediate hypersensitivity reaction to penicillin antibiotics. In these patients specialist advice should be sought.¹

1, **2** and **3** denote order of preference. Alternatives of equal preference have the same number.

Confidentiality and privacy

You must sign and date the **Submission cover sheet** to participate in this audit.

By participating you agree to aggregation of your de-identified patient data and use of your personal data. Individual results of your clinical audit are kept confidential by NPS.

What will happen to your patient data

- Your de-identified patient data forms are scanned and returned to you.
- Your individual results are provided to you only.
- Your data are aggregated with those of other participants and the de-identified aggregate results:
 - are provided to all participants
 - may be used in NPS evaluation and reports
 - are provided to the RACGP and ACRRM.

The RACGP has advised that program information may be shared with researchers and interested general practitioners for the purpose of continuing education coordination at the discretion of the QA&CPD Program.

What will happen to your personal details

Your personal details:

- are provided to a mail house for processing
- are provided to the RACGP QA&CPD Program and/or ACRRM Professional Development Program for point allocation (if applicable)
- are recorded for the purpose of the PIP and NPS evaluation
- can be obtained from NPS by request in writing.

Individual clinical audit results will not be available after potentially identifying data are removed from NPS records at the close of the clinical audit cycle.

Please note: You are responsible for advising NPS of any changes of address during the audit cycle.

Further information

Therapeutic enquiries

Contact Holly Parsons at NPS:
phone (02) 8217 8700

Audit and QPI enquiries

Chun Yu at NPS: phone (02) 8217 8700

References

1. Therapeutic Guidelines: Antibiotic, Version 13, 2006.
2. Little P, et al. Pragmatic randomised controlled trial of two prescribing strategies for childhood acute otitis media. *BMJ* 2001;322:336–42.
3. Australian Lung Foundation and Thoracic Society of Australia and New Zealand. The COPD-X Plan: Australian and New Zealand Guidelines for the management of chronic obstructive pulmonary disease. Australian Lung Foundation, 2006. <http://www.copdx.org.au/guidelines/index.asp> (accessed 30 January 2007).
4. Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2006. <http://www.goldcopd.com/Guidelineitem.asp?l1=2&l2=1&intId=996> (accessed 15 February 2007).

March 2007

The information contained in this material is derived from a critical analysis of a wide range of authoritative evidence. Any treatment decisions based on this information should be made in the context of the clinical circumstances of each patient.



National Prescribing Service Limited

NPSA0398

National Prescribing Service Limited ACN 082 034 393
An independent, non-profit organisation for Quality Use of Medicines,
funded by the Australian Government Department of Health and Ageing.

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Clinical audit: Targeted use of antibiotics

Please see the *Guide to clinical audit* booklet to help you complete this double-sided form.

Use a **black biro** to mark a **cross (X)** in the box beside your response.
If you make a mistake, use white correction fluid.



NPS office use only

Patient visit details

1. Your patient code:
(Do not use name/s)

2. Age: < 6 months 6 months – < 2 years
 2–7 years 8–12 years 13–17 years
 18–64 years 65–80 years > 80 years

3a. Principal diagnosis (mark one only):

- skin infection (e.g. bite [animal or human], cellulitis)
 respiratory infection (e.g. common cold, rhinosinusitis [non-specific URTI], acute bronchitis, acute exacerbations of COPD, pharyngitis/tonsillitis, acute otitis media [AOM], acute sinusitis)

3b. Does the patient have any relevant co-morbidities/characteristics to this diagnosis?

yes (specify) _____ no

4. Was symptomatic management prescribed or recommended this visit? e.g. fluids, analgesia

yes no not applicable

5a. Which antibiotic(s) were prescribed this visit?

antibiotic(s): _____

none ▶ go to Q10

5b. If using amoxicillin, record amount per dose and frequency:

Adult dose: 250 mg 500 mg > 500mg other

Child dose: 6.6 mg/kg 13 mg/kg 15 mg/kg
 30 mg/kg other

Frequency: 6-hourly 8-hourly 12-hourly

6. Previous drug hypersensitivity/adverse reaction(s):

- nil history of antibiotic hypersensitivity/adverse reaction
 immediate penicillin hypersensitivity (urticaria, angioedema, bronchospasm or anaphylaxis within 1 hour)
 penicillin hypersensitivity (excluding immediate hypersensitivity)
 other antibiotic hypersensitivity/adverse reaction
 not known

Patient education and management

7. Prescription to be filled:

immediately later if required

8. Were explicit instructions on duration of treatment given?

yes no not known

9. Was Consumer Medicine Information recommended/given?

yes no not known

10. Was the patient's expectation of antibiotic treatment discussed?

yes no not known

11. Principal diagnosis	12. Clinical features (mark all applicable)	13. Antibiotic(s) prescribed	14. Duration prescribed
Skin infections/bites			
<input type="checkbox"/> animal bite <input type="checkbox"/> human bite	<input type="checkbox"/> mild wound, no tendon or joint involvement, adequately debrided and irrigated, seen < 8 hours	<input type="checkbox"/> no antibiotic	<input type="checkbox"/> N/A
	<input type="checkbox"/> presented ≥ 8 hours since bite <input type="checkbox"/> puncture wound unable to be adequately debrided <input type="checkbox"/> hand, foot or face wound <input type="checkbox"/> involvement of bones, joints, tendons <input type="checkbox"/> immunocompromised patient	<input type="checkbox"/> amoxicillin+clavulanic acid <input type="checkbox"/> metronidazole and doxycycline* <input type="checkbox"/> metronidazole and trimethoprim+sulfamethoxazole <input type="checkbox"/> metronidazole and ciprofloxacin	<i>if immediate penicillin hypersensitivity</i>
		<input type="checkbox"/> other antibiotic prescribed Reason _____	<input type="checkbox"/> other
<input type="checkbox"/> mild, early cellulitis — <i>S. pyogenes</i> suspected or confirmed	<input type="checkbox"/> <i>S. pyogenes</i> confirmed or suspected due to clinical presentation (e.g. spontaneous rapidly spreading cellulitis) or local disease patterns (e.g. in Indigenous communities in central and northern Australia)	<input type="checkbox"/> penicillin V (phenoxymethylpenicillin) ▶ <input type="checkbox"/> procaine penicillin (IM) ▶ <input type="checkbox"/> clindamycin (if immediate penicillin hypersensitivity) ▶ <input type="checkbox"/> cephalexin [†] (if penicillin hypersensitivity)	<input type="checkbox"/> 10 days <input type="checkbox"/> ≥ 3 days <input type="checkbox"/> 7–10 days
<input type="checkbox"/> other mild, early cellulitis	<input type="checkbox"/> mild, early cellulitis where <i>S. aureus</i> or <i>S. pyogenes</i> suspected	<input type="checkbox"/> di/flucloxacillin <input type="checkbox"/> clindamycin (if immediate penicillin hypersensitivity) <input type="checkbox"/> cephalexin [†] (if penicillin hypersensitivity)	<input type="checkbox"/> 7–10 days
<input type="checkbox"/> severe cellulitis	<input type="checkbox"/> significant systemic features or not responding to oral therapy after 48 hours	<input type="checkbox"/> intravenous therapy	<input type="checkbox"/> other
<input type="checkbox"/> other cellulitis	<input type="checkbox"/> other causative organisms suspected e.g. water-related infection	<input type="checkbox"/> other antibiotic prescribed Reason _____	<input type="checkbox"/> other
	<input type="checkbox"/> clinical features other than above	<input type="checkbox"/> no antibiotic	<input type="checkbox"/> N/A

Patient education and management (continued)

11. Principal diagnosis	12. Clinical features (mark all applicable)	13. Antibiotic(s) prescribed	14. Duration prescribed
Respiratory tract infections			
<input type="checkbox"/> common cold, rhinosinusitis (non-specific URTI) <input type="checkbox"/> acute bronchitis	No clinical features specified by <i>Therapeutic Guidelines: Antibiotics, 2006</i> to require antibiotics	<input type="checkbox"/> no antibiotic	<input type="checkbox"/> N/A
		<input type="checkbox"/> other antibiotic prescribed Reason _____	<input type="checkbox"/> other
<input type="checkbox"/> acute exacerbations of COPD	<input type="checkbox"/> infective exacerbations with purulent sputum plus increased sputum volume and/or increased dyspnoea	<input type="checkbox"/> amoxicillin <input type="checkbox"/> doxycycline*	<input type="checkbox"/> 5 days
	<input type="checkbox"/> clinical features other than above	<input type="checkbox"/> other antibiotic prescribed Reason _____	<input type="checkbox"/> other
<input type="checkbox"/> pharyngitis/ tonsillitis	<input type="checkbox"/> tonsillitis with the 4 diagnostic features suggesting <i>S. pyogenes</i> infection**	<input type="checkbox"/> penicillin V (phenoxymethylpenicillin) <input type="checkbox"/> roxithromycin (if penicillin hypersensitivity)	<input type="checkbox"/> 10 days
	<input type="checkbox"/> patient aged 2–25 years old with sore throat in communities at risk of acute rheumatic fever <input type="checkbox"/> existing rheumatic heart disease <input type="checkbox"/> scarlet fever <input type="checkbox"/> peritonsillar cellulitis or abscess (quinsy)	<input type="checkbox"/> other antibiotic prescribed Reason _____	<input type="checkbox"/> other
<input type="checkbox"/> acute otitis media (AOM)	<input type="checkbox"/> child with marked vomiting and fever <input type="checkbox"/> child < 6 months (must be reviewed in ≤ 24 hours if diagnosis is uncertain)	<input type="checkbox"/> amoxicillin <input type="checkbox"/> cefuroxime [†] <input type="checkbox"/> cefaclor [†]	<input type="checkbox"/> 5 days
	<input type="checkbox"/> child 6 months – 2 years with persistent pain and fever after symptomatic treatment for 24 hours <input type="checkbox"/> child ≥ 2 years with persistent pain and fever after symptomatic treatment for 48 hours	<input type="checkbox"/> if penicillin hypersensitivity	<input type="checkbox"/> other antibiotic prescribed Reason _____
<input type="checkbox"/> acute sinusitis	<input type="checkbox"/> severe sinusitis with at least 3 of the following:	<input type="checkbox"/> amoxicillin <input type="checkbox"/> amoxicillin+clavulanic acid <input type="checkbox"/> doxycycline* (if immediate penicillin hypersensitivity)	<input type="checkbox"/> 5–7 days
	<input type="checkbox"/> mucopurulent nasal discharge > 7–10 days <input type="checkbox"/> poor response to decongestants <input type="checkbox"/> facial pain <input type="checkbox"/> tenderness over the sinuses <input type="checkbox"/> tenderness on percussion of maxillary molar and premolar teeth	<input type="checkbox"/> cefaclor [†] <input type="checkbox"/> cefuroxime [†] <input type="checkbox"/> doxycycline*	<input type="checkbox"/> if penicillin hypersensitivity
	<input type="checkbox"/> clinical features other than above	<input type="checkbox"/> other antibiotic prescribed Reason _____	<input type="checkbox"/> other
		<input type="checkbox"/> no antibiotic	<input type="checkbox"/> N/A

* Do not use in children ≤ 8 years old or in pregnancy/lactation

† excluding a history of immediate hypersensitivity reaction to penicillin

** The 4 diagnostic features suggestive of *S. pyogenes* infection are: fever > 38 °C, tender cervical lymphadenopathy, tonsillar exudate and no cough.

Compare prescribing with guidelines

15. Was your management consistent with guideline recommendations?

For the principal diagnosis indicated in Q11, are your responses to Q12–14: wholly in the light green shaded areas **OR** wholly in the dark green shaded area? (See example on p.3 of *Guide*.)

- yes – Management is consistent with guideline recommendations.
 no – Management is NOT consistent with guideline recommendations.