with you, for you

NHS
Gloucestershire Health and Care
NHS Foundation Trust

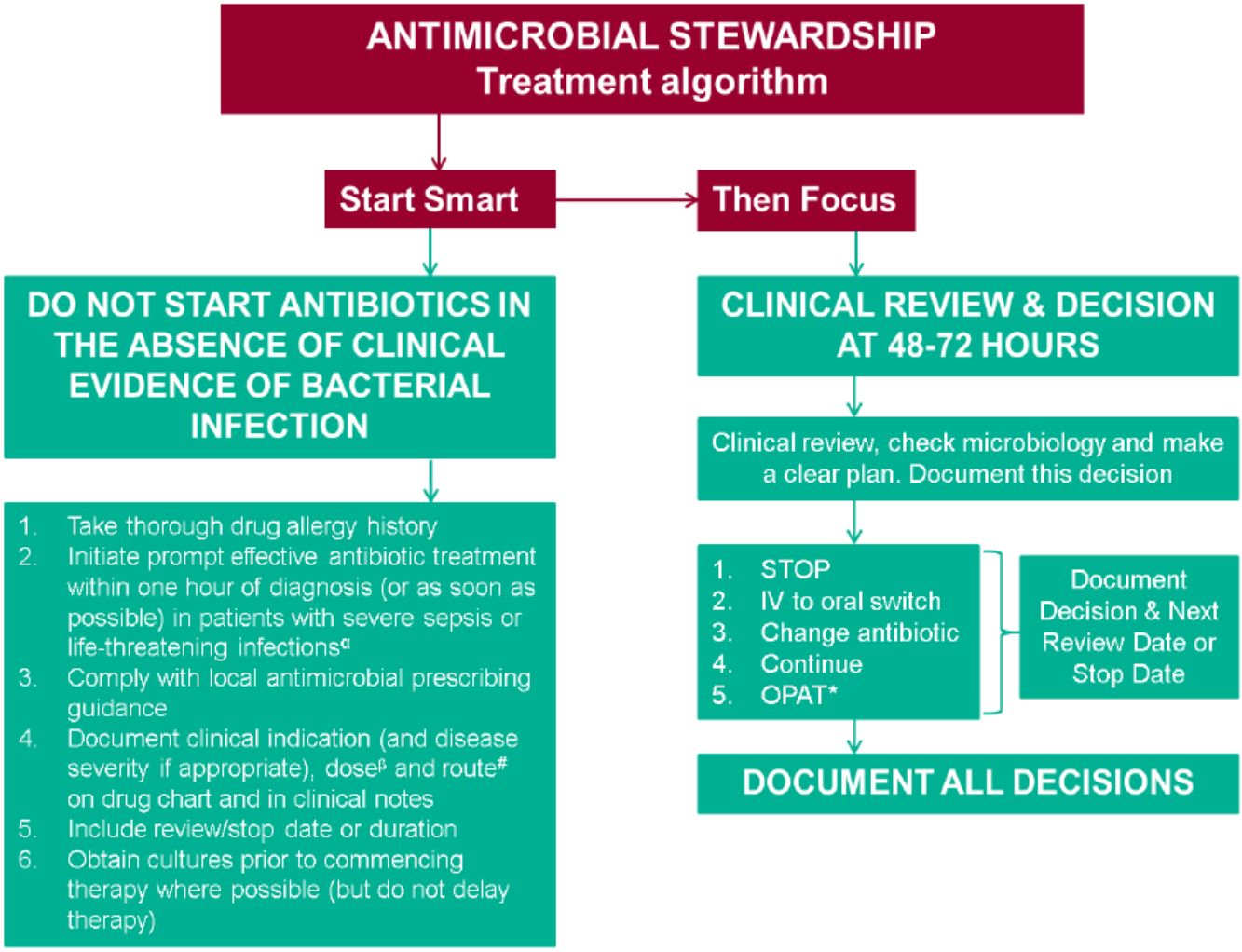
ANTIMICROBIAL GUIDELINES

SKIN AND SOFT TISSUE v2

Start Smart then Focus

A Start Smart - then Focus approach is recommended for all antibiotic prescriptions.

Start Smart then Focus Treatment Algorithm



Fluoroquinolone antibiotics: In March 2019, the MHRA issued restrictions and precautions for the use of fluoroquinolone antibiotics because of rare reports of disabling and potentially long-lasting or irreversible side effects (see Drug Safety Update for details). NICE is currently reviewing recommendations relating to fluoroquinolone antibiotics.

IMPORTANT – Fluoroquinolone Antibiotics (MHRA March 2019)
Systemic (by mouth, injection, or inhalation) fluoroquinolones (Ciprofloxacin, Levofloxacin, Moxifloxacin, Ofloxacin, Delafloxacin) can very rarely cause long-lasting (up to months or years), disabling, and potentially irreversible side effects, sometimes affecting multiple systems, organ classes, and senses

Consideration should be given to official guidance on the appropriate use of antibacterial agents. The new EU restrictions closely align with existing UK national guidance. The restrictions should not prevent use of a fluoroquinolone for serious or severe infections if this is consistent with UK national guidance or where there are microbiological grounds, and where the benefit is thought to outweigh the risk.

If you have any queries on choice of antibiotic please consult a microbiologist

IV Antimicrobials
Prescribing and administration of IV antimicrobials must only happen in services where colleagues are trained and competent to prescribe and administer IV treatments

Version	Change Detail	Date
1	Put in place for new organisation	February 2020
2	Updated in line with NICE and local microbiology direction	March 23

For review November 2025

Based on NICE summary of antimicrobial prescribing guidance – managing common infections
https://www.nice.org.uk/Media/Default/About/what-we-do/NICE-guidance/antimicrobial%20guidance/summary-antimicrobial-prescribing-guidance.pdf

Authors
Dr Philippa Moore, Consultant Medical Microbiologist, Gloucestershire Hospitals NHS Foundation Trust
Laura Bucknell, Chief Pharmacist, Gloucestershire Health and Care NHS Foundation Trust

IMPETIGO

(Urinary tract infection (catheter-associated): antimicrobial prescribing (nice.org.uk))

Definition: Impetigo is a contagious bacterial infection of the skin, usually caused by Staphylococcus aureus infection

- Non-bullous impetigo is characterised by thin-walled vesicles or pustules that rupture quickly, forming a golden brown crust.
- Bullous impetigo is characterised by the presence of fluid-filled vesicles and blisters often with a diameter of over 1 cm that rupture, leaving a thin, flat, yellow-brown crust

Advise people with impetigo, and their parents or carers if appropriate, about good hygiene measures to reduce the spread of impetigo to other areas of the body and to other people

Impetigo

<table>
<tr><td>LOCALISED NON-BULLOUS IMPETIGO</td><td colspan="2">Initial treatment for ADULTS AND CHILDREN

1st line
HYDROGEN PEROXIDE 1% cream apply TWO or THREE TIMES A DAY
Treatment duration – 5 days

2nd line
FUSIDIC ACID 2% cream apply THREE TIMES A DAY
Treatment duration – 5 days

3rd line (if fusidic acid resistance suspected/confirmed)
MUPIROCIN 2% ointment apply THREE TIMES A DAY
Treatment duration – 5 days</td></tr>
<tr><td></td><td>Antibiotic choice</td><td>Penicillin Allergy (see explanatory notes)</td></tr>
<tr><td>WIDESPREAD NON-BULLOUS IMPETIGO</td><td><u>ADULTS</u>
FLUCLOXACILLIN 500mg FOUR TIMES A DAY

<u>CHILDREN</u>
<table><tr><th>Age</th><th>Dose</th></tr><tr><td>1 month to 2 years</td><td>62.5mg – 125mg FOUR times a day</td></tr><tr><td>2 years to 10 years</td><td>125mg-250mg FOUR times a day</td></tr><tr><td>10 years to 18 years</td><td>250mg-500mg FOUR times a day</td></tr></table>Treatment duration – 5 days</td><td><u>ADULTS and CHILDREN 12 years and over</u>
CLARITHROMYCIIN 250mg TWICE A DAY

<u>CHILDREN</u>
1 month – 11years of age
<table><tr><th>weight</th><th>dose</th></tr><tr><td>Less than 8kg</td><td>7.5mg/kg TWICE a day</td></tr><tr><td>8kg to 11kg</td><td>62.5mg TWICE a day</td></tr><tr><td>12kg-19kg</td><td>125mg TWICE a day</td></tr><tr><td>20kg-29kg</td><td>187.5mg TWICE a day</td></tr><tr><td>30-40kg</td><td>250mg TWICE a day</td></tr></table>Treatment duration – 5 days</td></tr>
</table>

	Do not offer combination treatment with a topical and oral antibiotic to treat impetigo. **5 days treatment is appropriate for most, can be increased to 7 days based on clinical judgement.**
	For people with impetigo that is worsening or has not improved after completing a course of oral antibiotics, consider sending a skin swab for microbiological testing. For people with impetigo that recurs frequently send a skin swab for microbiological testing and • consider taking a nasal swab and starting treatment for decolonisation If a skin swab has been sent for microbiological testing, review the choice of antibiotic when results are available and change the antibiotic according to results if symptoms are not improving, using a narrow-spectrum antibiotic if possible

NICE Antimicrobial prescribing summary for impetigo visual-summary-pdf-7084853533 (nice.org.uk)

SECONDARY BACTERIAL INFECTIONS OF EZCEMA

(Secondary bacterial infection of eczema and other common skin conditions: antimicrobial prescribing (nice.org.uk))

Definition: Eczema is a skin condition that can make the skin dry, itchy, red, broken and sore. It can also cause blisters and crusting. Eczema can get infected with bacteria, which is also called a secondary bacterial infection.

The signs of an infection can include

- Rapidly worsening eczema (a flare)
- Pus-filled blisters that weep and crust over
- No response to standard eczema treatment such as emollients and corticosteroids
- Fever
- Generally unwell

Secondary Bacterial Infections of Ezcema

Severity	**1st line**	**Penicillin Allergy (see explanatory notes)**
Advice	Manage underlying eczema and flares with treatments such as emollients and topical corticosteroids, whether antibiotics are given or not. Symptoms and signs of secondary bacterial infection can include: weeping, pustules, crusts, no response to treatment, rapidly worsening eczema, fever and malaise. Not all flares are caused by a bacterial infection, so will not respond to antibiotics. Eczema is often colonised with bacteria but may not be clinically infected. Do not routinely take a skin swab.	
Not systemically unwell:	**DO NOT OFFER either a topical or oral antibiotic** Take into account: ➢ the evidence, which suggests a limited benefit with antibiotics in addition to topical corticosteroids compared with topical corticosteroids alone ➢ the risk of antimicrobial resistance with repeated courses of antibiotics ➢ the extent and severity of symptoms or signs ➢ the risk of developing complications, which is higher in people with underlying conditions such as immunosuppression.	
	Systemically Unwell	
Mild and localised **Topical antibiotic** **only**	**Topical treatment is only appropriate for localised infections** **FUSIDIC ACID 2% CREAM** **Apply THREE TIMES A DAY, topically, to the affected area** **Treatment duration: 5-7 day**	

Moderate	**FLUCLOXACILLIN 500mg FOUR TIMES a day orally** **Treatment duration: 5-7 days**	**CLARITHROMYCIN 250mg TWICE A DAY orally** **(can be increased to 500mg TWICE A DAY in severe infections)** **Treatment duration: 5-7 days**

NICE Antimicrobial prescribing summary for 2nd bacterial infection of eczema:

NG190 Secondary bacterial infection of eczema: antimicrobial prescribing visual summary (nice.org.uk)

CELLULITIS

(Cellulitis and erysipelas: antimicrobial prescribing (nice.org.uk))

Definition: Cellulitis is an infection of the tissues under the skin. It is usually unilateral if on a limb. The main bacteria causing cellulitis and are Streptococcus pyogenes and Staphylococcus aureus, but infection can also be caused by other beta-haemolytic Streptococci, and very rarely by Streptococcus pneumoniae, Haemophilus influenzae, gram-negative bacilli and anaerobes

Assessment of grade of cellulitis (Eron/Dall criteria):	
Class 1	Healthy patients with cellulitis, up to 15cm diameter, with or without fever
Class 2	Healthy patients or patient with peripheral vascular disease, diabetes or obesity with cellulitis greater than 15cm diameter with or without fever. Patients in whom oral antibiotics have failed. Consider admission or use OPAT/Rapid Response
Class 3	Patients with fever and mental status change, physical findings of gangrene, crepitus bullae or open draining wounds. Admit or RR
Class 4	Patients with systemic complication of severe infection which includes hypotension, renal failure and acute respiratory distress syndrome

Advice	Ensure the appropriate treatment by excluding other causes of skin redness (inflammatory reactions or non-infections causes such as chronic venous insufficiency • Offer an antibiotic • Consider marking extent of infection with a single-use surgical marker pen • Consider a swab for microbiological testing, but only if skin broken and risk of uncommon pathogen • Manage underlying conditions such as diabetes, venous insufficiency, eczema and oedema. Advice for patient • possible adverse effects of antibiotics • skin will take time to return to normal after finishing the antibiotics • seek medical help if symptoms worsen rapidly or significantly at any time, or do not start to improve in 2 to 3 days Reassess if • symptoms worsen rapidly, or do not start to improve in 2 to 3 days • the person is very unwell, has severe pain, or redness or swelling beyond the initial presentation Take account of other possible diagnoses, any underlying condition, symptoms or signs of a more serious illness or condition, any microbiological results and previous antibiotic use. Consider a swab for microbiological testing if not done already. Review antibiotic when any microbiological results available, and change if infection not improving, using narrow spectrum antibiotics where possible

Severity	1st line	Penicillin Allergy (see explanatory notes)
Minor to Moderate **Class 1-2**	**FLUCLOXACILLIN 500mg- 1g FOUR TIMES a day orally** **Treatment duration: 5-7 days**	**CLARITHROMYCIN 500mg TWICE A DAY orally** **Or** **DOXYCYCLINE 200mg DAILY orally** **Treatment duration: 5-7 days**
Moderate to Severe (inpatient) **Class 3-4**	**FLUCLOXACILLIN 1g-2g FOUR TIMES a day IV** **Review after 48 hours with a view to step down to oral** If suspected/confirmed MRSA, use **TEICOPLANIN monotherapy IV 12 hourly for 4 doses then ONCE DAILY** **Less than 50kg = 400mg** **50-74kg = 600mg** **75- 100mg = 800mg** **More than 100mg = 1000mg** **Maintain treatment pending pre-dose (trough) levels on day 5** **Target level 15-60mg/l** For traumatic wounds assess tetanus immune status. Consider adding: **METRONIDAZOLE 400mg THREE TIMES A DAY (oral) or 500mg TDS IV**	**CLINDAMYCIN 1.2g FOUR TIMES A DAY IV** ***(NB** STOP and review if patient develops diarrhoea on clindamycin)* **Review after 48 hours with a view to step down to oral** If suspected/confirmed MRSA, use **TEICOPLANIN monotherapy IV 12 hourly for 4 doses then ONCE DAILY** **Less than 50kg = 400mg** **50-74kg = 600mg** **75- 100mg = 800mg** **More than 100mg = 1000mg** **Maintain treatment pending pre-dose (trough) levels on day 5** **Target level 15-60mg/l** For traumatic wounds assess tetanus immune status. Consider adding: **METRONIDAZOLE 400mg THREE TIMES A DAY (oral) or 500mg TDS IV**
Moderate to Severe (OPAT) **Class 3-4**	If no recent hospital admissions (within 1 month), no recent *Clostridioides difficile* infection (CDI) diarrhoea (within 6 months) use **CEFTRIAXONE 2g ONCE DAILY IV** **Review after 48 hours with a view to step down to oral** **OR** **DALBAVANCIN- discuss with Consultant Microbiologist**	If high risk of *Clostridioides difficile* infection (CDI), allergy to cephalosporins, or known MRSA positive patient use: **DAPTOMYCIN 6mg/kg DAILY IV** (usually rounded up to whole vial) Patient weight: Under45kg: 6mg/kg IV DAILY 46-60kg: 350mg IV DAILY 61-85kg: 500mg IV DAILY 86-115kg: 700mg IV DAILY 116-140kg: 850mg IV DAILY Above 140kg: discuss with Microbiology **Review after 48 hours with a view to step down to oral**
IV to oral switch	See oral treatment choices in minor to moderate section	

NICE Antimicrobial prescribing summary for Cellulitis and erysipelas

[NG141 Cellulitis and erysipelas: antimicrobial prescribing visual summary (nice.org.uk)]

LEG ULCER INFECTION

(Leg ulcer infection: antimicrobial prescribing (nice.org.uk))

Definition: A leg ulcer is a long-lasting (chronic) open wound that takes more than 4 to 6 weeks to heal. Leg ulcers usually develop on the lower leg, between the shin and the ankle. Symptoms and signs of an infected leg ulcer include:

- Redness or swelling spreading beyond the ulcer
- Localised warmth
- Increased pain
- Fever

Leg Ulcer Infection

Severity	1st line	Penicillin Allergy (see explanatory notes)
Advice	Be aware that: • there are many causes of leg ulcers: underlying conditions, such as venous insufficiency and oedema, should be managed to promote healing • most leg ulcers are not clinically infected but are likely to be colonised with bacteria • antibiotics **do not help** to promote healing when a leg ulcer is not clinically infected Only offer an antibiotic for adults with a leg ulcer when there are symptoms or signs of infection (for example, redness or swelling spreading beyond the ulcer, localised warmth, increased pain or fever).	
Mild/Moderate	**FLUCLOXACILLIN 500mg- 1g FOUR TIMES a day orally** **Treatment duration: 7 days**	**DOXYCYCLINE 200mg on FIRST DAY then 100mg DAILY orally** **(Can be increased to 200mg DAILY)** **Treatment duration: 7 days**
Moderate (on discussion with microbiology)	**CO-AMOXICLAV 500/125mg THREE TIMES a day orally** **Treatment duration: 7 days**	**CO-TRIMOXAZOLE 960mg TWICE A DAY orally** **Treatment duration: 7 days**
Moderate/Severe (on discussion with microbiology)	**FLUCLOXACILLIN 1g-2G FOUR TIMES A DAY IV** **with or without** **GENTAMICIN- Initially 5 mg/kg to 7 mg/kg ONCE DAILY IV** **And/or** **METRONIDAZOLE 400 mg three times a day orally or 500 mg three times a day IV**	**CO-TRIMOXAZOLE 960 mg twice a day IV** (increased to 1.44 g twice a day in severe infection) **With or without** **GENTAMICIN- Initially 5 mg/kg to 7 mg/kg ONCE DAILY IV** **And/or** **METRONIDAZOLE 400 mg three times a day orally or 500 mg three times a day IV**

NICE Antimicrobial prescribing summary for Leg Ulcer Infection

NG152 Leg ulcer infection: antimicrobial prescribing visual summary (nice.org.uk)

ANIMAL AND HUMAN BITES

Advice	Assess the type and severity of the bite, including: • what caused the bite • the site and depth of the wound • whether it is infected Assess the risk of tetanus, rabies or a blood-borne viral infection and take appropriate action Manage the wound with irrigation and debridement as necessary Be aware of potential safeguarding issues Seek specialist advice from a microbiologist for bites from a wild or exotic animal (including birds and non-traditional pets) Consider seeking specialist advice from a microbiologist for domestic animal bites (including farm animal bites) you are unfamiliar with. If indicated, give oral antibiotics to people with a human or animal bite if there are symptoms or signs of infection, such as increased pain, inflammation, fever, discharge or an unpleasant smell
Prophylactic Treatment of uninfected bite	**Prophylactic Treatment of uninfected bite** **Human Bites** • Do not offer antibiotic prophylaxis to people with a human bite that has not broken the skin. • Offer antibiotic prophylaxis to people with a human bite that has broken the skin and drawn blood. • Consider antibiotic prophylaxis for people with a human bite that has broken the skin but not drawn blood if it ➢ Involves a high-risk area such as the hands, feet, face, genitals, skin overlying cartilaginous structures or an area of poor circulation **or** ➢ Is in a person at risk of a serious wound infection because of a comorbidity (such as diabetes, immunosuppression, asplenia or decompensated liver disease). **Cat Bites** • Do not offer antibiotic prophylaxis to people with a cat bite that has not broken the skin. • Offer antibiotic prophylaxis (see the recommendations on choice of antibiotic) to people with a cat bite that has broken the skin and drawn blood. • Consider antibiotic prophylaxis for people with a cat bite that has broken the skin but not drawn blood if the wound could be deep. **Dog bite or other traditional pet bites (excluding cat bites)** • Do not offer antibiotic prophylaxis to people with a bite from a dog or other traditional pet (excluding cat bites) that: ➢ Has not broken the skin **or** ➢ Has broken the skin but not drawn blood. • Offer antibiotic prophylaxis (see the recommendations on choice of antibiotic) to people with a bite from a dog or other traditional pet that has broken the skin and drawn blood if it: ➢ Has penetrated bone, joint, tendon or vascular structures **or**

	➢ Is deep, is a puncture or crush wound, or has caused significant tissue damage **or** ➢ Is visibly contaminated (for example, if there is dirt or a tooth in the wound). • Consider antibiotic prophylaxis (see the recommendations on choice of antibiotic) for people with a bite from a dog or other traditional pet (excluding cat bites) that has broken the skin and drawn blood if it: ➢ Involves a high-risk area such as the hands, feet, face, genitals, skin overlying cartilaginous structures or an area of poor circulation **or** ➢ Is in a person at risk of a serious wound infection because of a comorbidity (such as diabetes, immunosuppression, asplenia or decompensated liver disease	
Severity	**1st line**	**Penicillin Allergy (see explanatory notes)**
	Adults (18 years of age and over)	
Minor to Moderate	**CO-AMOXICLAV 250/125mg or 500/125mg THREE TIMES a day orally** **Treatment duration:** **Prophylaxis – 3 days** **Treatment – 5 to 7 days**	**DOXYCYCLINE 200mg ONCE A DAY orally** **PLUS** **METRONIDAZOLE 400mg THREE TIMES A DAY orally** **Treatment duration:** **Prophylaxis – 3 days** **Treatment – 5 to 7 days**
Moderate to Severe **Or unable to take oral treatment**	**CO-AMOXICLAV 1.2g THREE TIMES a day IV** **Review after 48 hours with a view to step down to oral**	**CEFTRIAXONE 2g ONCE A DAY IV** **PLUS** **METRONIDAZOLE 500mg THREE TIMES A DAY IV** **Review after 48 hours with a view to step down to oral**
IV to oral switch	See oral treatment choices in minor to moderate section	
	CHILDREN 1 month – 17 years of age	
Minor to Moderate	**1 Month – 17 years** **CO-AMOXICLAV** **1 month to 11 months: 0.25 ml/kg of 125/31 suspension THREE TIMES A DAY ORALLY** **1 year to 5 years: 0.25 ml/kg or 5 ml of 125/31 suspension THREE TIMES A DAY ORALLY** **6 years to 11 years: 0.15 ml/kg or 5 ml of 250/62 suspension THREE TIMES A DAY ORALLY** **12 years to 17 years: 250/125 mg or 500/125 mg three times a day**	**UNDER 12 YEAR OF AGE** **CO-TRIMOXAZOLE (off-label use; see the BNF for Children for information on monitoring):** **6 weeks to 5 months: 120 mg or 24 mg/kg TWICE A DAY** **6 months to 5 years, 240 mg or 24 mg/kg TWICE A DAY**

	ORALLY. Co-amoxiclav (400/57 suspension may also be considered to allow for twice-daily dosing) **Treatment duration:** **Prophylaxis – 3 days** **Treatment – 5 to 7 days**	**6 years to 11 years, 480 mg or 24 mg/kg TWICE A DAY** **12 TO 17 YEARS OF AGE USE:** **DOXYCYCLINE: 200 mg on first day, then 100 mg or 200 mg daily ORALLY** **With** **METRONIDAZOLE: 400 mg three times a day ORALLY** **Treatment duration:** **Prophylaxis – 3 days** **Treatment – 5 to 7 days**
Moderate to Severe **Or unable to take oral treatment**	**CO-AMOXICLAV:** **1 month to 2 months: 30 mg/kg twice a day IV** **3 months to 17 years: 30 mg/kg three times a day IV** **(maximum per dose 1.2g)** **Review after 48** hours with a view to step down to oral	**CEFTRIAXONE (caution in penicillin allergy): 1 month to 11 years (up to 50 kg): 50 mg/kg to 80 mg/kg once a day (maximum 4 g per day) IV** **9 years to 11 years (50 kg and above) and 12 years to 17 years: 1 g to 2 g once a day IV** **With** **METRONIDAZOLE: 1 month: loading dose 15 mg/kg, then (after 8 hours) 7.5 mg/kg three times a day 2 months to 17 years: 7.5 mg/kg three times a day (maximum per dose 500 mg**) **Review after 48 hours with a view to step down to oral**

NICE Antimicrobial prescribing summary for animal and human bites

visual-summary-pdf-8897023117 (nice.org.uk)

TRAUMATIC WOUNDS AND OPEN FRACTURES

Definition: Traumatic wounds are typically defined as cuts, lacerations, or puncture wounds leading to damage to both the skin and underlying tissues. If they are not treated on time, it can cause severe damage to the soft tissues in the skin. Traumatic wounds are a type of sudden or unplanned injury that can occur after accidents or due to any violence. These wounds include abrasions, lacerations, skin tears, bites, burns, and penetrating trauma wounds, etc.

An open fracture is a broken bone that has come through the skin. They are usually caused by high energy injuries such as road traffic collisions, falls or sports injuries. Urgent treatment is required as open fractures are at a much greater risk of infection and delayed healing of the bone compared to fractures with intact skin. For traumatic wounds assess tetanus immune status.

Severity	1st line	Penicillin Allergy (see explanatory notes)
	Adults (18 years of age and over)	
Simple open fractures – IV not indicated	**CO-AMOXICLAV 500/125mg THREE TIMES a day orally** **Prophylaxis duration – 3 days** If suspected/confirmed MRSA use: **DOXYCYCLINE 200mg ONCE A DAY orally**	**CLINDAMYCIN 450mg FOUR TIMES A DAY orally** ***(NB** STOP and review if patient develops diarrhoea on clindamycin)* **Prophylaxis duration – 3 days** If suspected/confirmed MRSA use: **DOXYCYCLINE 200mg ONCE A DAY orally**
IV indicated	**CO-AMOXICLAV 1.2g EVERY 8 HOURS IV** **Duration – until debridement**	**CLINDAMYCIN 600mg IV EVERY 6 HOURS (NB:** for patients >90kg give **1.2g)** ***(NB** STOP and review if patient develops diarrhoea on clindamycin)* **Duration – until debridement** If suspected/confirmed MRSA, use **TEICOPLANIN monotherapy IV 12 hourly for 4 doses then ONCE DAILY** **Less than 50kg = 600mg** **50-74kg = 800mg** **75- 100mg = 1000mg** **More than 100mg = 1200mg** **Maintain treatment pending pre-dose (trough) levels on day 5** **Target level 15-60mg/l**

		PLUS **METRONIDAZOLE 400mg THREE TIMES A DAY (oral) or 500mg TDS IV**
	CHILDREN 1 month – 17 years of age	
Simple open fractures – IV not indicated	**CO-AMOXICLAV** **1 month to 11 months:** **0.25 ml/kg of 125/31 suspension THREE TIMES A DAY ORALLY** **1 year to 5 years: 5 ml of 125/31 suspension THREE TIMES A DAY ORALLY** **6 years to 11 years: 5 ml of 250/62 suspension THREE TIMES A DAY ORALLY** **12 years to 17 years: 250/125 mg three times a day ORALLY.** **Treatment duration:** **Prophylaxis – 3 days**	**CLINDAMYCIN** **14 days to 12 years** **3-6mg/kg FOUR TIMES A DAY ORALLY** ***(NB** STOP and review if patient develops diarrhoea on clindamycin)* **Over 12 years 300-450mg FOUR TIMES A DAY ORALLY** **Treatment duration:** **Prophylaxis – 3 days**
IVs indicated **(refer to MEDUSA for guidance on administration)**	**CO-AMOXICLAV:** **Child 1–2 months** **30 mg/kg IV every 12 hours until** debridement - intravenous infusion over 30 to 4 minutes is recommended in children less than 3 months. **Child 3 months–17 years** **30 mg/kg IV every 8 hours** (max. per dose 1.2 g every 8 hours) until debridement	**CLINDAMYCIN** **Child over 1 month** **5mg/kg (max 300mg)** infused over 15 minutes ***(NB** STOP and review if patient develops diarrhoea on clindamycin)* **Duration – until debridement**

WOUNDS FROM DELIBERATE SELF HARM

- Wounds resulting from deliberate self harm should be assessed for the need for empiric antibiotics
- There is no evidence for antibiotic prophylaxis being of benefit
- Repeated courses of antibiotics in patients who deliberately self harm may precipate *Clostridioides difficile infection*
- Consider whether tetanus vaccination/booster is required

Wounds from deliberate self harm

Superficial Wounds: lacerations, burns

- The majority of superfical wounds **WILL NOT** need antibiotic therapy if there is no sign of local infection
- Antibiotics should NOT be given prophylactically
- Local wound toilet is appropriate especailly following foreign body removal or if contaminated with dirt
- If evidence of lcal infecton, take a wound swab for microscopy culture and sensitivity. Treatment should then be adjusted according to the results

Deep Wounds (penetrating the fascial layer), insertion of foreign bodies per vagina, per rectum, etc with penetration of mucosal layer

- Antibiotics may be necessary and the wound should be regularly assessed for evidence of infection
- Foreign bodies should be removed and local wound toileting should be performed as appropriate

If antibiotic treatment is clinically indicated

	Antibiotic choice	**Penicillin Allergy (see explanatory notes)**
1st line	**Adults and Children 14 years and over** **FLUCLOXACILLIN 500mg ORALLY FOUR TIMES A DAY** **Duration of treatment: 5 days**	**Adults and Children 14 years and over** **CLARITHROMYCIN 500mg ORALLY TWICE A DAY** **Duration of treatment: 5 days**
2nd line	**CO-AMOXICLAV 375mg-625mg ORALLY THREE TIMES A DAY** **Duration of treatment: 5 days**	**CLINDAMYCIIN 300-450MG ORALLY FOUR TIMES A DAY** ***(NB** STOP and review if patient develops diarrhoea on clindamycin)* **Duration of treatment: 5 days**

DIABETIC FOOT INFECTION

(Overview | Diabetic foot problems: prevention and management | Guidance | NICE)

Definition: In people with diabetes, all foot wounds are likely to be colonised with bacteria. Diabetic foot infection has at least 2 of:

- local swelling or induration
- erythema
- local tenderness or pain
- local warmth
- purulent discharge

Classification

- Mild - local infection with 0.5 cm to less than 2 cm erythema
- Moderate - local infection with more than 2 cm erythema or involving deeper structures (such as abscess, osteomyelitis, septic arthritis or fasciitis)
- Severe - local infection with signs of a systemic inflammatory response

All patients should be under the care of the Diabetic Foot Care service who must be alerted to a suspected diabetic infection in a patient.

Start antibiotic treatment as soon as possible. Take samples for microbiological testing before, or as close as possible to, the start of antibiotic treatment.

Give oral antibiotics first line if possible. When choosing an antibiotic, take account of:

- the severity of infection (mild, moderate or severe)
- the risk of complications
- previous microbiological results
- previous antibiotic use
- patient preference

When microbiological results are available:

- review the choice of antibiotic, and
- change the antibiotic according to results, using a narrow spectrum antibiotic, if appropriate

Reassess if symptoms worsen rapidly or significantly at any time, do not start to improve within 1 to 2 days, or the person becomes systemically very unwell or has severe pain out of proportion to the infection. Take account of:

- other possible diagnoses, such as pressure sores, gout or non-infected ulcers
- symptoms or signs suggesting something more serious such as limb ischaemia, osteomyelitis, necrotising fasciitis or sepsis
- previous antibiotic use

Give advice about:

- possible adverse effects of the antibiotics
- seeking medical help if symptoms worsen rapidly or significantly at any time, or do not start to improve within 1 to 2 days

Do not offer antibiotics to prevent diabetic foot infection

Refer immediately and inform multidisciplinary foot care service if there are limb- or life-threatening problems such as:

- ulceration with fever or any signs of sepsis or
- ulceration with limb ischaemia, or
- suspected deep-seated soft tissue or bone infection, or gangrene

Diabetic Foot Infection

Severity	1st line	Penicillin Allergy (see explanatory notes)
	Adults (18 years of age and over)	
MILD	**FLUCLOXACILLIN 500mg – 1g FOUR TIMES A DAY orally** **Duration – 7 days**	**CLARITHROMYCIN 500mg TWICE A DAY orally** **Duration – 7 days**
MODERATE	**CO-AMOXICLAV 625mg THREE TIMES A DAY orally** **Duration – 7 days** **If suspected/confirmed MRSA use: DOXYCYCLINE 200mg DAILY orally**	**CLINDAMYCIN 450mg FOUR TIMES A DAY orally** ***(NB** STOP and review if patient develops diarrhoea on clindamycin)* **Duration – 7 days** **If suspected/confirmed MRSA use: DOXYCYCLINE 200mg DAILY orally**
TO SEVERE	**CIPROFLOXACIN 500mg TWICE A DAY orally** **PLUS** **CLINDAMYCIN 1.2g FOUR TIMES A DAY IV** ***(NB** STOP and review if patient develops diarrhoea on clindamycin)* **If suspected/confirmed MRSA use:** **TEICOPLANIN IV EVERY 12 HOURS FOR FOUR doses then ONCE DAILY** **DOSE** **Less than 50kg: 400mg** **50-74kg: 600mg** **75-100kg: 800mg** **More than 100kg: 1000mg** **Maintain treatment pending pre-dose (trough) level on Day 5** **Target level 15-60mg/L** **Review IV therapy when clinical signs are largely resolved**	
SEVERE to LIFE THREATENING	**Escalate to Acute Trust**	
IV to ORAL switch	**CIPROFLOXACIN 500mg-750mg TWICE A DAY orally** **PLUS** **CLINDAMYCIN 450mg FOUR TIMES A DAY orally** ***(NB** STOP and review if patient develops diarrhoea on clindamycin)*	

NICE Antimicrobial prescribing summary for diabetic foot infectioNG19 Diabetic foot problems: prevention and management: Visual summary 18/01/2023 (nice.org.uk)

SCABIES

Definition: Scabies is a skin infection caused by tiny mites that burrow in the skin. The pregnant female mite burrows into the top layer of the skin and lays about 2 to 3 eggs per day before dying after 4 to 5 weeks. The burrows may be several centimetres long but they are very close to the surface of the skin. The eggs hatch after 3 to 4 days into larvae which move to hair follicles where they develop into adults.

The appearance of the rash varies but tiny pimples and nodules are characteristic. Secondary infection can occur if the rash has been scratched. The scabies mites are attracted to folded skin such as the webs of the fingers. Burrows may also be seen on the wrists, palms elbows, genitalia and buttocks

Spread is most commonly by direct contact with the affected skin.

Occasionally if there is impaired immunity or altered skin sensation, large numbers of mites occur and the skin thickens and becomes very scaly

It is important that the second treatment is not missed and this should be carried out 1 week after the first treatment.

All household contacts and any other very close contacts should have 1 treatment at the same time as the second treatment of the case

SCABIES

1st line	**PERMETHRIN 5**% cream To the skin • Apply once weekly for 2 doses, apply 5% preparation over whole body from the ears/chin down • If under 2 years, elderly or immunosuppressed also treat face and scalp • Wash off after 8–12 hours. • If hands are washed with soap within 8 hours of application, they should be treated again with cream
2nd line	If allergic to permethrin treat with **MALATHION 0.5% aqueous liquid** To the skin • Apply once weekly for 2 doses, apply preparation over whole body including face and scalp • Allow to dry naturally • Wash off after 12 hours or overnight
Close contacts	All household contacts and any other very close contacts should have 1 treatment within 24 hours of the first treatment

HERPES INFECTIONS

VARICELLA ZOSTER/CHICKENPOX

If pregnant/immunocompromised/neonate seek urgent specialist advice
Advise paracetamol for pain relief

CHICKENPOX
Consider antiviral treatment if:
Within 24 hours of rash appearing
AND 1 of the following applies

- Over 14 years of age
- Severe pain
- Dense/oral rash
- Taking steroids
- Active smoker

ACICLOVIR tablets 800mg orally FIVE TIMES A DAY

Treatment duration: 7 days

HERPES ZOSTER/SHINGLES

Treat with antiviral treatment if:
Over 50 years of age and within 72 hours of rash appearing
Or patient is immunocompromised
Or 1 of the following applies

- Active ophthalmic
- Ramsey Hunt
- eczema
- non-truncal involvement
- moderate or severe pain
- moderate or severe rash

If more than 72 hours then consider starting treatment up to a week after rash onset especially if the patient has 1 of the following

- Older Age
- Continued vesicle formation
- Active ophthalmic
- Ramsey Hunt
- eczema
- non-truncal involvement
- moderate or severe pain
- moderate or severe rash

1st Line:
ACICLOVIR tablets 800mg orally FIVE TIMES A DAY

2nd Line – if poor compliance; not for children
FAMCICLOVIR tablets 250mg-500mg orally THREE TIMES A DAY or 750mg orally TWICE A DAY
OR
VALACICLOVIR 1g tablets orally THREE TIMES A DAY

Treatment duration: 7 days

COLD SORES

Definition: Cold sores are caused by a virus called herpes simplex and usually appear on lips and around nostrils but can spread more widely over the face. It is estimated that 50 to 90% of the population are carriers of the virus but they do not all suffer from cold sores.

It is usually a mild self-limiting disease. Most people who already suffer from cold sores will have been infected very early in life.

First signs are tingling, burning or itching in the area where it is going to appear. This phase may last for as little as 24 hours. There is reddening and swelling of the infected area resulting in a fluid filled blister, or sometimes a group of them, which can be very painful and uncomfortable. They break down to form ulcers, which weep and crack. They then dry up and crust over.

The virus can be reactivated by various trigger factors such as stress or sunlight

The virus is spread by direct contact

Cold Sores

1st line	**Most resolve after 5 days without treatment**.
2nd line	Topical antivirals applied prodromally can reduce duration by 12 to 18 hours **ACICLOVIR 5% CREAM apply FIVE times a day topically to the area of the cold sore**
3rd line	**If frequent, severe, and predictable triggers: consider oral prophylaxis** **ACICLOVIR 400mg TWICE A DAY orally for 5 to 7 days**

CONJUNCTIVITIS

Definition: Conjunctivitis is an inflammation of the outer lining of the eye and eyelid causing an itchy red eye with a sticky or watery discharge. It can be caused by bacteria or viruses or due to an allergy. Conjunctivitis can be caused by a bacteria or a virus.
Spread is by direct or indirect contact with discharge from the eyes.
Good hand washing helps to prevent spread especially after contact with infectious secretions

Conjunctivitis

1st line	Bath/clean eyelids with cotton wool dipped in sterile saline or boiled (cooled) water, to remove crusting. Treat only with antibiotics if severe- most cases are viral or self-limiting
2nd line	**CHLORAMPHENICOL 0.5% EYE DROPS OR 1% EYE OINTMENT** Eye drops: ONE drop in the affected eye **2 HOURLY** for 2 days, then reduce frequency to **THREE to FOUR times** a day Eye ointment: Apply to the affected eye **THREE to FOUR** times daily Or **ONCE AT NIGHT** if using antibiotic eye drops during the day **Treatment duration: continue for 48 hours after resolution**
3rd line	**FUSIDIC ACID 1% EYE GEL** Apply to the affected eye **TWICE A DAY** **Treatment duration: continue for 48 hours after resolution**

BLEPHARITIS

Definition: An inflammation of the eyelids. This occurs due to infection at the base of eyelashes or when the tiny oil glands at the base of the eyelashes become clogged. Symptoms of blepharitis include

- Sore eyelids
- Itchy eyes
- A gritty feeling in the eyes
- Flakes or crusts around the root of the eyelashes

Blepharitis

1st line	Lid hygiene for symptom control, including • Warm compress • Lid massage and scrubs • Gentle washing • Avoid cosmetics
2nd line If hygiene measure are ineffective after 2 weeks	**CHLORAMPHENICOL 1% EYE OINTMENT** Apply to the affected eye **TWICE A DAY** **Treatment duration: can be up to 6 weeks**

PANTON-VALENTINE LEUKOCIDIN (PVL)

Microsoft Word - Guidance on the diagnosis and management of PVL associated SA infections in England 071108.doc (publishing.service.gov.uk)

Definition: Panton-Valentine Leukocidin (PVL) is a toxin produced by some strains of Staphylococcus aureus (S. aureus). These can be meticillin sensitive (MSSA) or meticillin resistant (MRSA) strains

PVL can cause (rarely) severe invasive infections in healthy people
PVL can cause cellulitis, abscesses, boils and carbuncles

Suppression therapy should only be started after primary infection has resolved, as ineffective if lesions are still leaking.

Risk factors for PVL:

- recurrent skin infections
- invasive infections
- MSM
- If there is more than one case in a home or close community (school children, military personnel; nursing home residents; household contacts).

Minor furunculosis, folliculitis and small abscesses without cellulitis do not need antibiotic treatment
Topical antibiotics are not usually appropriate

	Antibiotic choice	Penicillin Allergy (see explanatory notes)
For MSSA	**FLUCLOXACILLIN 500mg ORALLY FOUR TIMES A DAY** **Duration of treatment: 5-7 days**	**CLINDAMYCIIN 450MG ORALLY FOUR TIMES A DAY** ***(NB** STOP and review if patient develops diarrhoea on clindamycin)* **Duration of treatment: 5 days**
For MRSA	**DOXYCYLINE 200mg DAILY ORALLY** **OR** **CLINDAMYCIIN 450MG ORALLY FOUR TIMES A DAY** **Duration of treatment: 5-7 days** ***(NB** STOP and review if patient develops diarrhoea on clindamycin)*	

PANTON-VALENTINE LEUKOCIDIN (PVL) DECOLONISATION (SUPPRESSION) THERAPY

After successful treatment of PVL infections, decolonisation is recommended:

1st line	**Nasal decolonisation** **MUPIROCIN 2% nasal ointment (Bactroban Nasal) THREE TIMES A DAY for 5 days topically** • Push cotton bud back in to each nostril • Massage nose squeezing each side together • Encourage patient to sniff (if correctly applied patient should report they can taste the ointment) • Elderly patients may need assistance • Patients who are self-medicating need to be supervised **And** **Skin DECOLONISATION** **4% CHLORHEXIDINE GLUCONATE (Hibiscrub antiseptic solution) DAILY for 5 days topically** Bathe or shower daily for 5 days concurrent with the use of nasal ointment/gel; • Skin should be moistened and the solution should be applied undiluted (as if using soap or shower gel) to all body surfaces paying attention to body creases including axilla, groin, and buttocks • A minimum contact time of 2 minutes must take place before the undiluted solution can be rinsed off • The same procedure should be used for all bathing procedures including bed baths • Dry the skin using a clean towel. A clean towel should be used each day, do not use the same cloth or towel everyday unless they are laundered in between uses **NB: Do not add to water to either skin solution as this makes the solution to dilute to be effective** Use emollients/body lotion after bathing to ensure skin is moisturised. Discontinue if there is skin irritation and contact a member of the Infection Prevention and Control Team or Dermatology department for advice on alternative therapy **And** **Hair wash** **4% CHLORHEXIDINE GLUCONATE (Hibiscrub antiseptic solution) on day 2 and day 4 topically** Hair should be washed on day 2 and 4 using Hibiscrub and should remain in contact with the hair for a minimum of 3 minutes. Patients can use their own shampoo and conditioner afterwards. Hair extensions must also be washed and beadings removed.

2nd line if patient has irritant dermatitis	**<u>Nasal decolonisation</u>** **OCTENISAN nasal ointment THREE TIMES A DAY for 5 days topically** • Push cotton bud back in to each nostril • Massage nose squeezing each side together • Encourage patient to sniff (if correctly applied patient should report they can taste the ointment) • Elderly patients may need assistance • Patients who are self-medicating need to be supervised **And** **<u>Skin decolonisation</u>** **OCTENIDINE antimicrobial wash DAILY for 5 days topically** Bathe or shower daily for 5 days concurrent with the use of nasal ointment/gel; • Skin should be moistened and the solution should be applied undiluted (as if using soap or shower gel) to all body surfaces paying attention to body creases including axilla, groin, and buttocks • A minimum contact time of 2 minutes must take place before the undiluted solution can be rinsed off • The same procedure should be used for all bathing procedures including bed baths • Dry the skin using a clean towel. A clean towel should be used each day, do not use the same cloth or towel everyday unless they are laundered in between uses **NB: Do not add to water to either skin solution as this makes the solution to dilute to be effective** Use emollients/body lotion after bathing to ensure skin is moisturised. Discontinue if there is skin irritation and contact a member of the Infection Prevention and Control Team or Dermatology department for advice on alternative therapy **And** **<u>Hair wash</u>** **OCTENIDINE antimicrobial wash on day 2 and day 4 topically** Hair should be washed on day 2 and 4 using octenidine and should remain in contact with the hair for a minimum of 3 minutes. Patients can use their own shampoo and conditioner afterwards. Hair extensions must also be washed and beadings removed.

After washing, use clean towels, sheets and clothing DAILY. Launder items seprately from others, using as high a temperature as the fabric will allow
Family/close contacts should alos be screened and offered decolonisation if found to be carriers

DERMATOPHYTE INFECTION of the SKIN

- Take skin scrapings for culture.
- Terbinafine is fungicidal so treatment is shorter than with fungistatic imidazoles
- If Candida is possible, use imidazole
- Discuss scalp infection with specialist

	Dermatophyte Infection of the skin 1% **TERBINAFINE Cream TWICE A DAY topically** **Duration: 1 to 4 weeks** **OR** **IMIDAZOLE (e.g. clotrimazole 1% cream) TWICE A DAY topically** **Duration: 4 to 6 weeks**
	For athletes foot **UNDECANOATES (e.g. Mycota®) TWICE A DAY topically** **Duration: 4 to 6 weeks**

CANDIDA INFECTION of the SKIN

- Confirm by laboratory
- Treat with 1% azole cream but use lotion if treating paronychia; 1-2 times daily; 1 week, or in case of paronychia, until swelling goes

	Candida Infection of the skin **1% AZOLE cream (e.g. clotrimazole 1% cream) TWICE A DAY topically** **Duration: 1 to 2 weeks but in the case of paronychia treat until swelling reduces**

DERMATOPHYTE INFECTION of fingernails and/or toenails

- Take nail clippings
- **Treat only if infection confirmed by laboratory**
- For children, seek specialist advice

Superficial infection of the top surface of nail plate

	5% AMOROLFINE nail lacquer apply 1-2 times weekly topically Duration 6 months on finger nails 12 months on toe nails

Infections with Dermatophytes

1st line	**TERBINAFINE 250mg ONCE DAILY orally** **Duration:** **finger nails - 6 to 12 weeks** **toe nails – 3 to 6 months**
2nd line for infections with candida or non-dermatophyte moulds	**ITRACONAZOLE 200mg TWICE A DAY orally** **Duration** **Finger nails- 2 course of 7 days a month** **Toe nails – 3 course of 7 days a month**

PITYRIASIS VERISCOLOR

- scratching the surface of the lesion should demonstrate mild scaling
- 1% azole cream; 1% terbinafine or shampoo containing ketoconazole; 1-2 times daily; usually 1 week

	1% AZOLE cream (e.g. clotrimazole 1% cream) ONCE or TWICE A DAY topically **OR** **1% TERBINAFINE cream ONCE or TWICE A DAY topically** **OR** **SHAMPOO containing KEROCONZAOLE ONCE or TWICE A DAY topically** **Duration: usually one week** • days a month for fingers; 3 courses of 7 days a month for toes

ACNE VULGARIS

(NICE guideline on acne vulgaris.)

- For all grades of acne dispel myths and give clear information tailored to the patient's needs and concerns. Topics to cover include:
  - the possible reasons for their acne
  - treatment options, including over the counter treatments if appropriate
  - the benefits and drawbacks associated with treatments
  - the potential impact of acne
  - the importance of adhering to treatment
  - relapses during or after treatment, including: – when and how to obtain further advice – treatment options should a relapse occur
- Advise that improvement may not be seen for at least 2 months with any treatment
- Mild to moderate acne- this includes people who have 1 or more of
  - any number of non-inflammatory lesions (comedones)
  - up to 34 inflammatory lesions (with or without non-inflammatory lesions)
  - up to 2 nodules.
- Moderate to severe acne - this includes people who have either or both of:
  - 35 or more inflammatory lesions (with or without non-inflammatory lesions)
  - 3 or more nodules
- **Review first-line treatment at 12 weeks.**
- Only continue a topical or oral antibiotic for more than 6 months in exceptional circumstances.
- Review at 3 monthly intervals, and stop the antibiotic as soon as possible**.**

First-line treatment options for acne vulgaris

Offer a course of 1 of the options in the table below, taking account of severity, preferences, and advantages/disadvantages of each option.

SEVERITY	TREATMENT and ADULT DOSE
Any severity	Fixed combination of **0.1% ADAPALENE** with **2.5% BENZOYL PEROXIDE TOPICALLY** **Or** **0.3% ADAPALENE** with **2.5% BENZOYL PEROXIDE TOPICALLY** **Apply THINLY ONCE DAILY in the evening**
Any severity	Fixed combination of **0.025% TRETINOIN with 1% CLINDAMYCIN TOPICALLY** **Apply THINLY ONCE DAILY in the evening**
Mild to moderate	Fixed combination of **3% BENZOYL PEROXIDE with 1% CLINDAMYCIN TOPICALLY** Or **5% BENZOYL PEROXIDE WITH 1% CLINDAMYCIN** **Apply ONCE DAILY in the evening**
Moderate to severe	Fixed combination of **0.1% ADAPALENE with 2.5% BENZOYL PEROXIDE** **or** **0.3% ADAPALENE with 2.5% BENZOYL PEROXIDE** **Apply ONCE DAILY in the evening** **plus**

	LYMECYLINE 408mg ONCE A DAY orally **OR** **DOXYCYLINE 100mg ONCE A DAY orally**
Moderate to severe	**15% or 20% AZELAIC ACID TWICE A DAY topically** **plus** **LYMECYCLINE 408mg ONCE A DAY orally** **OR** **DOXYCYCLINE 100mg ONCE A DAY orally**
Alternative	**Alternative monotherapy to the above if:** **Treatments are contra-indicated** **Or** **The person wants to avoid topical retinoid or an antibiotic (oral or topical** **5% BENZOYL PEROXIDE topically ONCE or TWICE a day**

For doses in children refer to the most current BNF for Children

MASTITIS

Definition- Mastitis means inflammation of the breast, and is a common complication during breastfeeding. It starts with poor milk drainage, often associated with ineffective attachment of the baby at the breast. Mastitis can frequently be self-managed by improving milk drainage

S. aureus is the most common infecting pathogen causing mastitis. Consider if a woman has

- a painful, tender or red breast
- fever and/or general malaise

Mothers may not have all of the signs and symptoms. The diagnosis of mastitis should be made by examining the woman's breast and listening to her history of the problem and symptoms, to confirm if two or more of the clinical features are present. Many women will present with a fever. The symptoms are the same, whether or not the mastitis is infective. When the onset of mastitis is sudden, escalation rapid and symptoms are severe, it is more likely that the cause is infection.

Women should be advised to continue feeding including from the affected breast

If mastitis symptoms are not improving, 12 -24 hours after the onset of symptoms, despite self-help measures of effective and frequent milk removal, or if symptoms are severe or worsening antibiotic therapy is recommended.

<table>
<tr><td>Self Management</td><td colspan="2">In the early stages of mastitis the mother should be advised to contact a midwife or public health nurse for help with the positioning and attachment of her baby at the breast.
The mother should be advised to try self-management:
Keep breastfeeding (it is the quickest way to recover)
Ensure frequent and effective feeding
Try different positions for feeding
Start each feed with the affected side for up to 3 feeds
Express milk by hand as necessary after feeds (it is important to prevent engorgement on the unaffected breast as well as frequently drain the affected side)
Take an oral anti-inflammatory and analgesic medication such as Ibuprofen 400mg three times a day after food or/and Paracetamol 1gram four times a day.
Use a hot compress and gentle massage of the breast before feeding to assist the milk to flow
Use a cold compress to help relieve pain and reduce swelling between feeds/expressions
Take adequate fluids and rest</td></tr>
<tr><td></td><td>Antibiotic choice</td><td>Penicillin Allergy (see explanatory notes)</td></tr>
<tr><td>If antibiotics are indicated</td><td>FLUCLOXACILLIN 500mg FOUR TIMES A DAY orally

Duration 10 to 14 days</td><td>ERYTHROMYCIN 250mg-500mg FOUR TIMES A DAY orally

Duration 10 to 14 days</td></tr>
</table>

LYME DISEASE

(Overview | Lyme disease | Guidance | NICE)

Definition: Lyme disease, or Lyme borreliosis, is a bacterial infection that can be transmitted to humans when they are bitten by an infected tick.

	Antibiotic choice	Penicillin Allergy (see explanatory notes)
Treat erythema migrans **empirically** For other suspected Lyme disease such as neuroborreliosis (CN palsy, radiculopathy) seek advice.[1D]	**Adults and children 12 years and over** **1st line** **DOXYCYLINE 100mg TWICE A DAY orally** **Duration- 21 days** **2nd line** **AMOXICILLIN 1g THREE TIMES A DAY orally** **Duration – 21 days**	**DOXYCYLINE 100mg TWICE A DAY orally** **Duration- 21 days**
	Children 1 month – 11 years **Body weight up to 34kg (seek advice from microbiologist)** **AMOXICILLIN 30mg/kg THREE TIMES A DAY orally** **Body weight 34kg and above** **AMOXICILLIN 1g THREE TIMES A DAY orally** **Duration – 21 days**	**Children 1 month – 11 years** **Body weight up to 45kg (seek advice from microbiologist)** **Day 1: DOXYCYLINE 5mg/kg in TWO DIVIDED DOSES orally followed by** **Day 2 – 21 DOXYCYLINE 2.5mg/kg in ONE or TWO DIVIDED DOSES orally** **Body weight up 45kg and above** **DOXYCYLINE 100mg TWICE A DAY orally** **Duration – 21 days**