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**Guidance for managing children presenting to Primary Care Hubs (updated- 12/12/2022)**

**This document has been developed to support clinical decision making within primary care hubs but does not substitute clinical judgement. National guidance continues to be updated- please ensure you refer to the latest national and local guidance (see useful resources below).**

**Clinical Pathway: Child Presenting to the Hub**

*Children will likely present with one or more of the following presenting symptoms: fever, sore throat, cough, coryza, rash, nausea, lack of appetite*

***Take full history, observations, and clinical examination of the child.***

 ***\*\* Remember to ask about regular contact with clinically vulnerable individuals, pregnant women and those who have given birth in the last 6 weeks as they will be susceptible to more severe infections.***

***Identify risk factors for sepsis:***

**• The very young (under 1 year)**

**• Recent trauma or surgery or invasive procedure (within the last 6 weeks).**

**• Impaired immunity due to illness (for example, diabetes) or drugs (for example, people receiving long term steroids, chemotherapy or immunosuppressants).**

 **• Indwelling lines, catheters, intravenous drug misusers, any breach of skin integrity (for example, any cuts, burns, blisters or skin infections).**

**• close contact with someone with group A streptococcal infection**

**\*If at risk of neutropenic sepsis – refer to secondary or tertiary care (or Child’s Direct Access Letter and Management plan)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical Findings** | **Green - low risk** | **Amber- intermediate risk** | **Red- high risk** |
| Colour/ Activity | * Normal colour of skin, lips and tongue
* Responds normally to social cues
* Content/smiles
* Stays awake/awakes quickly
* Strong cry/Normal cry
 | * Pallor reported by carer
* Reduced response to social cues
* Wakes only after prolonged stimulation
* Infant (under 1 year) decreased feeding
* Decreased activity/lethargy
* Features of Scarlet Fever (See below)
 | * Blue or grey colour/mottled
* Unable to rouse or if roused does not stay awake
* Clinical concerns about nature of cry (Weak, high pitched or continuous)
 |
| Respiratory | * None of amber or red symptoms
* Saturations (if available) of 96% or above
 | * < 1 year: 50–59 breaths per minute
* 1–2 years: 40–49 breaths per minute
* 3–4 years: 35–39 breaths per minute
* 5-6 years: 24–28 breaths per minute
* 6–7 years: 24–26 breaths per minute
* 8–11 years: 22–24 breaths per minute
* >12 years: 21–24 breaths per minute
* Mild respiratory distress
* Audible stridor only on exertion/if distressed
* Saturations 92-95% or increased oxygen requirements
* Nasal flaring
 | * < 1 year: 60 breaths per minute or more
* 1–2 years: 50 breaths per minute or more
* 3–4 years: 40 breaths per minute or more
* 5-6 years: 29 breaths per minute or more
* 6–7 years: 27 breaths per minute or more
* 8–11 years: 25 breaths per minute or more ▫
* >12 years: 25 breaths per minute or more
* Grunting
* Apnoeas
* Stridor at rest
* Unable to complete sentences
* Saturations 91% or below or increased oxygen requirement over baseline
* Or a new need for 40% oxygen or more to maintain saturations more than 92%
 |
| Circulation/hydration | * None of the amber or red symptoms
 | * Cold hands and feet in absence of fever
* Reduced urine output or for catheterised patients <1ml/kg/hour
* Not tolerating fluids/vomiting
* Reduced fluid intake: 50-75% of usual intake over previous 3-4 feeds
* crt :2-3 seconds
* Tachycardia:
* < 1 year: 150–159 beats per minute
* 1-2 years: 140–149 beats per minute
* 3–4 years: 130–139 beats per minute
* 5-6 years: 120–129 beats per minute
* 6–7 years: 110–119 beats per minute
* 8–11 years: 105–114 beats per minute
* > 12 years: 91–130 beats per minute
 | * Markedly reduced fluid intake: < 50% over last 2-3 feeds (age < 12 months)
* Reduced skin turgor
* crt >3
* Tachycardia:
* <1 year: 160 beats per minute or more ▫
* 1–2 years: 150 beats per minute or more ▫
* 3–4 years: 140 beats per minute or more
* 5-6 years: 130 beats per minute or more
* 6–7 years: 120 beats per minute or more ▫
* 8–11 years: 115 beats per minute or more
* >12 years: more than 130 beats per minute
* heart rate less than 60 beats per minute at any age
 |
| Other | * No amber or red symptoms
 | * Risk factors for severe illness.
* Significant co-morbidities
* Fever for ≥ 5 days
* Swelling of limb or joint
* Non-weight bearing / not using an extremity
* Swollen eye
* A new lump ≥ 2cm
* Symptoms suggest UTI

• Age 3-6 months with temp ≥39° (102.2°F) with no clear focus of infection • Recent return from malaria endemic area in preceding 3 monthsAdditional parental/carer support required | * Fever > 38 C in < 3month old
* Non blanching rash
* Rigors
* Seizure
* Sudden onset and parental concern about inhaled foreign body.
* Bulging Fontanelle
* Neck stiffness
 |

**Management of children assessed as intermediate risk : If definitive condition can be diagnosed and treated in an out of hospital setting**

Provide Safety Netting verbally and the appropriate parent advice sheet

Advise on signs, symptoms, and changes - signpost the parent/carer where to go, should things change

Consider referral to acute paediatric community nursing team (S&W Herts: 07827954082 /West Essex 01279 342163)

Confirm that they are comfortable with the decisions/advice given

 Arrange any required follow up or review

 Send any relevant documentation to the GP of follow up or review

**Management of Children assessed as low risk**

Provide Safety Netting verbally and with the appropriate parent/carer advice sheet

Advise on signs, symptoms, and changes - signpost the parent/carer where to go, should things change

Confirm they are comfortable with the decisions/advice given

Always consider safeguarding issues

**Management of children assessed as high risk**

Refer immediately – consider emergency ambulance

Alert Paediatrician Commence relevant treatment to stabilise child for transfer

 Send relevant documentation

**Management of children assessed as intermediate risk : If no definitive focus can be found** AND/OR

Risk factors for serious disease AND/OR

Multiple Amber Features AND/OR

Clinical Concerns AND/OR

Multiple Presentations during the same illness AND/OR

Deterioration after a period of observation:

* Discuss with paediatric team on call and arrange admission if appropriate
* Arrange emergency ambulance if appropriate

**GAS Information**

*GAS is a bacteria that normally live in our throats and on our skin*

 *• Occasionally, they can cause infections that are mild – scarlet fever, tonsillitis, cellulitis*

 *• Rarely, infections are invasive (iGAS) and can be severe e.g. sepsis, pneumonia+/- empyema, bone and joint infections, necrotising fasciitis*

*• The clinical presentation of these infections is the same as it has always been, but currently we are seeing more children with empyema and pneumonia*

**Tonsillitis**

**Clinical features**: fever, sore throat, red/pus on tonsils.

In > 3-year-olds use clinical judgement and FEVERPAIN/Centor score\*.

In < 3-year-olds assess clinically for tonsillitis in history (refusing food/drink) and examination (red/pus on tonsils).

**Tests:**  Consider taking a throat swab:

- to assist with differential diagnosis

- or If patient is thought to be part of outbreak,

- or is allergic to penicillin

-or in contact with vulnerable individuals.

**Treat:**

As per the UKHSA guidance issued 2 December 2022, given the unusually high level of GAS and viral co-circulation in the community, health care professionals are asked to have a low threshold to consider and empirically prescribe antibiotics to children presenting with features of GAS infection, including when the presentation may be secondary to viral respiratory illness.

Deciding when to treat is difficult as the clinical presentation is not specific to GAS. It is importance to exercise your clinical judgement when making a choice as to whether to prescribe antibiotics or not.

Most children will have viral tonsillitis.

We advise antibiotics for the current period if:

 • Isolated tonsillitis (red/pus on throat) without other upper respiratory tract signs

• Evidence of tonsillitis and an epidemiological link to a known iGAS case

• The child has been unwell recently, seemed to get better, then deteriorated again with tonsillitis

• A decision to treat tonsillitis with antibiotics in children can be guided by a feverPAIN score of 3 or more (this is a lower threshold in light of increased invasive Classification: Official Publishing Approval Reference: PN00058 2 | Group A streptococcus in children: interim clinical guidance Group A Strep incidence and deviates from NICE guidance), in combination with clinical judgement (OR Centor score 3 or 4)

* If FEVERPAIN SCORE 2 consider back up antibiotic prescription.

**CENTOR:**

***History of Fever***

***Tonsillar Exudate***

***Absence of Cough***

***Tender anterior cervical lymphadenopathy***

1 point for each

**FEVER PAIN SCORE:**

***Fever***

***Purulence***

***Attended within 3 days or less***

***Severely inflamed tonsils***

***No cough or coryza***

1 point for each

\*FEVER PAIN SCORE:

* A score of 0 or 1 is thought to be associated with a 13 to 18% likelihood of isolating streptococcus
* A score of 2 or 3 is thought to be associated with a 34 to 40% likelihood of isolating streptococcus
* A score of 4 or 5 is thought to be associated with a 62 to 65% likelihood of isolating streptococcus

\*Centor Score:

* A score of 0, 1 or 2 is thought to be associated with a 3 to 17% likelihood of isolating streptococcus.
* A score of 3 or 4 is thought to be associated with a 32 to 56% likelihood of isolating streptococcus.

**Scarlet Fever**

**Clinical Features:** usually a combination of fever, sandpaper rash, strawberry tongue, +/- sore/red/pus on throat, lymphadenopathy, general fatigue, headache, nausea

**Tests:** Throat swab for MC&S

**Treatment:** Treat with antibiotics, as below

**Notify** UKHSA Health Protection Teams

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**Parent/Carer Advice Sheet:** [Strep A and scarlet Fever :: Hertfordshire and West Essex Healthier Together (hwehealthiertogether.nhs.uk)](https://www.hwehealthiertogether.nhs.uk/parentscarers/worried-your-child-unwell/scarlet-fever)

**Invasive GAS**

• Group A strep can invade and cause severe illness that evolves rapidly.

 • Be aware of the biphasic nature of the infections – if have they have improved after the initial onset of illness and then deteriorated, consider secondary bacterial infections (not only GAS).

 • Listen to parents when they say their child is not right, even if they cannot describe the exact issue

**Clinical Syndromes**

*Sepsis:* Stabilise, call 999, discuss with paediatric team on call

*Pneumonia*: there is an increase in pneumonia with empyema, so ensure a thorough examination is performed. If any red flag symptoms or signs/ reduced air entry on examination/clinical concern- discuss with paediatric team on call and arrange admission.

*Bone/joint infections*: If child presents with limp, swollen/red hot joint, discuss with paediatric team on call and arrange admission

*Necrotising fasciitis*: Symptoms appear usually within 24 hours of a minor injury. Pain is often very severe at presentation and worsens over time. There may be flu-like symptoms, such as nausea, fever, diarrhoea, dizziness and general malaise. Intense thirst develops as the body becomes dehydrated. Discuss with on call paediatric team and arrange admission.

**Antibiotic Options for Suspected Strep A Tonsillitis or Scarlet Fever:**

**1st Line:** Penicillin V (amoxicillin can be considered if Penicillin V not available or in younger children as amoxicillin may be more palatable)

*Duration for Scarlet Fever OR Suspected/Confirmed Group A Streptococcus Tonsillitis*: 10 days

Antibiotic treatment length for sore throat should follow NICE guidance. For phenoxymethylpenicillin: “Five days of phenoxymethylpenicillin may be enough for symptomatic cure, but a 10-day course may increase the chance of microbiological cure”. In the current circumstances clinicians should be aware that a five-day course will be appropriate for many children, at the discretion of the treating clinician.

**If penicillin allergic:**

Clarithromycin

*Duration for Scarlet Fever OR Suspected/Confirmed Group A Streptococcus Tonsillitis:* 10 days

OR

Azithromycin

*Duration for Scarlet Fever OR Suspected/Confirmed Group A Streptococcus Tonsillitis:* 5 days

In the event of non-availability, amoxicillin, macrolides and cefalexin are alternative agents in decreasing preference.

Co-trimoxazole is an option in the event of macrolide non-availability and penicillin anaphylaxis

**Antibiotic Dosage and Duration:**

|  |  |  |
| --- | --- | --- |
| **Antibiotic** | **Dose** | **Duration** |
| Penicillin V | 1month – 11 months :62.5mg QDS or 125mg BD1 yr to 5yr to 11 months: 125mg QDS OR 250mg BD 6years to 11yr 11 months :250mg QDS or 500mg bd12 years and above :500 mg QDS or 1000mg BD | Sore throat: 5-10 DaysScarlet Fever or Suspected/Confirmed Group A Streptococcus Tonsillitis : 10 days |
| Amoxicillin | **Child 1–11 months:** 125 mg TDS.**Child 1–4 years :**250 mg TDS**Child 5–11 years:** 500 mg TDS**Child 12–17 years:** 500 mg TDSOR25mg/kg/dose given BD (max 500mg BD) | Sore throat: 5-10 daysScarlet Fever or Suspected/Confirmed Group A Streptococcus Tonsillitis:10 Days |
| Clarithromycin | 1 month to 11 years: Under 8 kg: 7.5 mg/kg BD 8 to 11 kg: 62.5 mg BD12 to 19 kg: 125 mg BD20 to 29 kg: 187.5 mg BD30 to 40 kg: 250 mg BD12 to 17 years: 250 mg to 500 mg BD  | Sore throat: 5- 10 daysScarlet Fever or Suspected/Confirmed Group A Streptococcus Tonsillitis :10 days |
| Azithromycin | 6 months to 11 years 12mg/kg given daily (max 500mg daily)12 years and over 500mg daily | 5 days |

\*\*CONSIDER TAKING THROAT SWABS FOR CHILDREN PRESENTING WITH TONSILLITIS WHO ARE ALLERGIC TO PENICILLIN TO IDENTIFY SENSITIVITIES

Tablets /capsules (rather than liquids) should be prescribed where possible. Guidance is available on encouraging children to swallow tablets/capsules, and where not possible, link to advice **on crushing tablets**

[Using solid oral dosage form antibiotics in children – SPS - Specialist Pharmacy Service – The first stop for professional medicines advice](https://www.sps.nhs.uk/articles/using-solid-oral-dosage-form-antibiotics-in-children/)

Tips To Help Your Child Take Medicine: [Types of medicines – Medicines For Children](https://www.medicinesforchildren.org.uk/advice-guides/giving-medicines/)

Management of Contacts: Please note that we are unable to prescribe prophylactic antibiotics for patients that have been in contact with a confirmed case of Group A Streptococcus/Scarlet fever in the absence of clinical symptoms, unless recommended by the Health Protection teams. [Find your local health protection team in England - GOV.UK (www.gov.uk)](https://www.gov.uk/health-protection-team)

For further guidance refer to: [NHS England » Group A streptococcus communications to clinicians](https://www.england.nhs.uk/publication/group-a-streptococcus-communications-to-clinicians/)

Guidance on managing the ongoing antibiotic supply

As you may be aware stock levels are rapidly fluctuating on a large number of antibiotics. The current Strep A outbreak, alongside the usual winter increase in some infections, have started to cause further disruption.

This is a national problem and will affect all community pharmacies, dispensing practices and hospital pharmacy departments.

Community pharmacy is working hard to manage the national problem caused by global issues, and are trying their best to ensure they have the medicines needed for patients. However, it will vary across the system, and from day to day.

The Integrated Care Board is monitoring the situation. Locally healthcare providers should keep communication channels open so we can all work together to help patients.

To help manage the situation please consider the following if you have not already done so:

* *Reserve liquids for those that truly can’t take tablets or capsules.*
* *Children should be encouraged to swallow oral solid dose forms (tablets and capsules)[[1]](#footnote-1)[1], where possible. Whole doses of solid oral dosage forms can be used 'off-label' in place of oral suspensions. This includes use for Group A streptococcal infections. Where children are unable to swallow oral solid dose forms, follow advice below on how to give doses by dispersing or crushing tablets, or opening capsules*. [[Using solid oral dosage form antibiotics in children – SPS - Specialist Pharmacy Service – The first stop for professional medicines advice](https://www.sps.nhs.uk/articles/using-solid-oral-dosage-form-antibiotics-in-children/)](https://www.sps.nhs.uk/articles/using-solid-oral-dosage-form-antibiotics-in-children/)
* *When prescribing antibiotics ensure it is done on a separate script to any other medications. Consider issuing a paper FP10 rather than a token as this is easier to take to different pharmacies. Alternatively, the electronic prescription can be sent to the spine, rather than a specified pharmacy.*
* *Be aware that scripts may need to be changed if an item goes out of stock*
* *Let your patient know they may need to try a few pharmacies to find the item*
* *Help to reinforce the usual antibiotic messages - that they won’t help viruses and continue to communicate self-care messages*
* *Where appropriate/possible discuss with your local pharmacies how you can get regular reports regarding stock levels. Consider setting up a WhatsApp group or Teams group so that they can keep you informed of stock levels.*
* *Find out what is out of stock and alternatives in stock (this will change daily and throughout the day as they dispense to patients).*

We understand this is a very challenging time for practices and pharmacies. We will update you as and when we receive further information.

Guidance shared by Herts and West Essex ICB Pharmacy and Medicines Management Team7/12/2022

**Useful Resources:**

Safety Netting Advice Sheets: [Safety netting and parent information sheets :: Hertfordshire and West Essex Healthier Together (hwehealthiertogether.nhs.uk)](https://www.hwehealthiertogether.nhs.uk/professionals/gp-primary-care-staff/safety-netting-documents-parents)

UKHSA Group A streptococcus Communications Support Pack: [PowerPoint Presentation (ics.nhs.uk)](https://www.sussex.ics.nhs.uk/wp-content/uploads/sites/9/2022/12/UKHSA-iGAS-stakeholder-communications-support-pack.pdf)

Group A Streptococcal Infections: [Group A streptococcal infections: guidance and data - GOV.UK (www.gov.uk)](https://www.gov.uk/government/collections/group-a-streptococcal-infections-guidance-and-data)

Group A Streptococcus In Children: Interim Clinical Guidance Summary : [PRN00058-group-a-streptococcus-in-children-interim-clinical-guidance-december-2022.pdf (england.nhs.uk)](https://www.england.nhs.uk/wp-content/uploads/2022/12/PRN00058-group-a-streptococcus-in-children-interim-clinical-guidance-december-2022.pdf)

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1. [1] [1] [Medicines for Children](https://gbr01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.medicinesforchildren.org.uk%2Fadvice-guides%2Fgiving-medicines%2F&data=05%7C01%7Cstacey.golding%40nhs.net%7C7e84487409124c721aba08dad93b82c8%7C37c354b285b047f5b22207b48d774ee3%7C0%7C0%7C638061146854901875%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=FRVIQPx9T8WAMYpuq18Q5GT8F2pjjut7jUhuTAwPusM%3D&reserved=0) has useful guides on how to give medicines, including giving [tablets](https://gbr01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.medicinesforchildren.org.uk%2Fadvice-guides%2Fgiving-medicines%2Fhow-to-give-medicines-tablets%2F&data=05%7C01%7Cstacey.golding%40nhs.net%7C7e84487409124c721aba08dad93b82c8%7C37c354b285b047f5b22207b48d774ee3%7C0%7C0%7C638061146854901875%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=zK4Gx49RKx1AJ2IMuJsJdnJ9cJxYx%2BHyja0Tkz2Zr1w%3D&reserved=0) and [capsules](https://gbr01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.medicinesforchildren.org.uk%2Fadvice-guides%2Fgiving-medicines%2Fhow-to-give-medicines-capsules%2F&data=05%7C01%7Cstacey.golding%40nhs.net%7C7e84487409124c721aba08dad93b82c8%7C37c354b285b047f5b22207b48d774ee3%7C0%7C0%7C638061146854901875%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=qJrkj0dFXa%2Fl6%2BYEM8wN2C69Y612bC8OsHv7DHvnA2Q%3D&reserved=0).

[KidzMed](https://gbr01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.e-lfh.org.uk%2Fprogrammes%2Fkidzmed%2F&data=05%7C01%7Cstacey.golding%40nhs.net%7C7e84487409124c721aba08dad93b82c8%7C37c354b285b047f5b22207b48d774ee3%7C0%7C0%7C638061146854901875%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=805Sf88MIgNLnAuA%2BLH9jAO24C4VscXVnB9DrIbUFC0%3D&reserved=0) is an e-Learning resource from Health Education England for healthcare professionals teaching children to swallow pills [↑](#footnote-ref-1)