NHS Grampian

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NHS Grampian

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Our Ref LT/empTher/RACH/acute/MGPG/0619
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Dear Colleague

This letter authorises the extended use of the following guidance until 1st May 2020:

NHS Grampian Staff Empirical Therapy Guidance for Common Infections in Children in the Acute Sector (Summary poster)

This guidance remains clinically accurate and relevant, and the review of this guidance will commence shortly.

If you have any queries regarding this please do not hesitate to contact the Pharmacy and Medicines Directorate.

Yours sincerely

Lesley Thomson
Chair of Medicines Guidelines and Policies Group

Guidance for initial antibiotic therapy in children in acute hospitals. Specialist units may have separate policies.

Infection Management Guidelines: Empirical Antibiotic Therapy for Children

STOP AND THINK BEFORE YOU GIVE ANTIBIOTIC THERAPY! The initial treatment may need to be modified according to clinical response and results of microbiology and other investigations. The appropriate specimens of microbiology should be taken whenever possible before administering antibiotics; however this will depend upon the severity of the illness and the nature of the specimen. In patients who are stable and not septic, and in whom infection is only one of a number of possibilities, consideration should be given to deferring antibiotics until the results of cultures are known, as long as there is no change in the clinical condition in the interim. Recommendations for empirical oral switch are given in case no causative organism is identified.

Upper Respiratory Tract

Tonsillitis

Penicillin V oral

If severe or unable to swallow,
Benzylpenicillin IV

In penicillin allergy,
Clarithromycin oral

If severe or unable to swallow
Clarithromycin IV

Duration: 10 days.

Acute Otitis Media

Avoid or delay antibiotics in children without systemic features.

Amoxicillin oral
If severe,
Co-amoxiclav oral/IV

In penicillin allergy,
Clarithromycin oral.
If severe, **Cefuroxime** oral/IV

Duration: 5 days.

Lower Respiratory Tract

Non-severe community acquired pneumonia (CAP)

Amoxicillin oral

If penicillin allergy
Clarithromycin oral

Duration 5 days.

Severe CAP

Neonates
Benzylpenicillin IV
+ **Gentamicin****IV

Age > 1 month
Amoxicillin oral/IV

If not responding after 48 hours consider switching to **Co-amoxiclav** oral/IV

If penicillin allergy,
Age > 1 month
Cefuroxime oral/IV

Duration: 7 days.

Aspiration Pneumonia

Co-amoxiclav IV

Switch to oral **Co-amoxiclav**.

If penicillin allergy,
Cefuroxime IV
+ **Metronidazole** IV

Switch to oral **Cefuroxime** + **Metronidazole**.

Duration: 7 days.

Skin/Soft Tissue

Limited soft tissue infection

Flucloxacillin oral

In penicillin allergy,
Clindamycin oral

Duration: 7 days.

Moderate to severe Cellulitis

Flucloxacillin IV

Switch to oral **Flucloxacillin**

In penicillin allergy,
Clindamycin IV

Switch to oral **Clindamycin**

Duration: 7 - 14 days.

Neonatal Umbilical Infection - purulent discharge

Flucloxacillin oral / IV

If severe
add **Gentamicin** ** IV

Animal bite

Co-amoxiclav oral.

In penicillin allergy,
Age > 6 months and < 12 years
Co-trimoxazole oral
+ **Metronidazole** oral

Age > 12 years
Doxycycline oral
+ **Metronidazole** oral

Duration: 5 days.

Human Bite

Co-amoxiclav oral

In penicillin allergy,
Clarithromycin oral

+ (if severe)
Metronidazole oral

Duration: 7 days.

Urinary Tract

Lower UTI/cystitis

If child is receiving prophylactic medication and develops an infection, treatment should be with a different antibiotic based on microbiology results if available.

Age > 1month - 18 years
Trimethoprim oral

Or

Age > 1month - 18 years
Cefalexin oral

Duration: 3 days.

Pyelonephritis

Age < 6 months
Cefotaxime IV
or **Ceftriaxone*** IV

Age>6 months
Co-amoxiclav oral/IV

If severe infection or unresponsive after 48 hours, Add **Gentamicin**** IV

Switch to oral **co-amoxiclav**

Duration: 7 - 10 days

In penicillin allergy
Age >1 month
Ciprofloxacin oral/IV

Duration: 7 days

Catheter-related UTI

Remove/replace catheter and culture urine. Antibiotics are not indicated unless the patient has evidence of systemic infection eg pyrexia, loin pain, raised WCC or acute confusion. If systemic infection likely treat as for pyelonephritis.

Gastrointestinal

Appendicitis/Peritonitis/ Penetrating abdominal trauma

Metronidazole IV
+ **Gentamicin** IV
+/- **Amoxicillin** IV

Switch to oral **Co-amoxiclav**.

If penicillin allergy,
Clindamycin IV
+ **Gentamicin** IV**
Switch to oral **Clindamycin.**

Duration: 3 - 7 days.

Bone/Joint Infection

Acute Osteomyelitis/Septic arthritis/Acute discitis/ Deep myositis

If age < 6 months and no sensitivities:

Cefuroxime IV
+ **Gentamicin**** IV

If age > 6 months or if *Staphylococcus aureus* confirmed:

Flucloxacillin IV
+/- **Gentamicin**** IV

A switch to oral therapy can be considered once the patient is apyrexial for 48 hours and is clinically improving and CRP is resolving.

In penicillin allergy
If age < 6 months
Vancomycin ** IV
+ **Gentamicin** ** IV

If age > 6 months
Clindamycin IV
OR **Ciprofloxacin** IV

If MRSA likely use,
Vancomycin** IV
If pseudomonas likely use
Ceftazidime IV

Duration: 4 - 6 weeks

CNS

Meningitis or Meningococcal Septicaemia

Age < 1 month
Cefotaxime IV
+ **Amoxicillin** IV

Age > 1 month
Cefotaxime IV

If prolonged or multiple antibiotic use or travel to areas outside the UK in last 3 months contact Paediatric Infection Specialist or microbiology for advice.

Refer to BNFC for course lengths for appropriate organisms.

Brain Abscess

Cefotaxime IV

+ **Metronidazole** IV

Duration: at least 4-6 weeks

Encephalitis

Aciclovir IV

Duration: 21 days if HSV is confirmed

Sepsis or Feverish Illness – Unknown Source

Neonates - community acquired
Cefotaxime IV
+ **Amoxicillin** IV

Age >1month
Cefotaxime IV

If known MRSA carrier or in penicillin allergy give:

Age > 1 month
Vancomycin ** IV
+ **Gentamicin** ** IV

Neutropenic Sepsis

Piperacillin/tazobactam IV

In mild penicillin allergy:
Meropenem IV

Add **Gentamicin** ** IV if advised by consultant.

Add **Teicoplanin** IV if fever and/or rigors after line flushed earlier in day or soon after new line inserted.

Endocarditis

Infective Endocarditis

Native Valve Endocarditis (NVE)
Flucloxacillin IV
+ **Amoxicillin** IV
+ **Gentamicin** ** IV

NVE - if penicillin allergy
Vancomycin ** IV
+ **Gentamicin** ** IV

Intra-cardiac prosthesis
Vancomycin ** IV
+ **Rifampicin** oral
+ **Gentamicin** ** IV

REVIEW ANTIBIOTIC THERAPY DAILY

STOP? SIMPLIFY? SWITCH?

RATIONALISE ANTIBIOTIC THERAPY when microbiology results become available or clinical condition changes.
Review IV therapy daily and remember **IV - ORAL SWITCH**
- see IVOST policy on intranet

Note. These recommendations include antibiotics which are not licensed for all age groups. Please refer to BNFC or SPC for doses and licensing details.

FURTHER ADVICE can be obtained from the Consultant Paediatrician, Consultant - Paediatric Infectious Diseases, Duty Microbiologist or Clinical Pharmacist or the ID Unit Aberdeen Royal Infirmary. Infection Control advice may be given by the duty microbiologist.

The full antibiotic guidelines and policies can be found on the intranet at www.nhsgrampian.org/gjf - Chapter 5 Infections. Produced by the NHS Grampian Antimicrobial Management Team January 2016. Review January 2018.

* **Ceftriaxone** - refer to BNFC for contraindications.

** **Gentamicin** / **Vancomycin** - see IV monograph.

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