## **Alternative Antibiotic Options for Shortage of IV Aztreonam**



## COMPLETE THESE 4 KEY ACTIONS BEFORE CONSIDERING ALTERNATIVE ANTIMICROBIALS

**ACTION 1: SOURCE CONTROL IS KEY FOR INFECTION MANAGEMENT** 

If undrainable deep abscess discuss with Infection Specialist

TIMELY SOURCE CONTROL

REDUCES NEED FOR

ANTIMICROBIALS — SHORTER

DURATION IS BETTER

TARGETED THERAPY HAS PATIENT
BENEFITS AND POPULATION
BENEFITS — REDUCING RISK OF
ANTIMICROBIAL RESISTANCE

**ACTION 2: REVIEW MICROBIOLOGY RESULTS** 

Use narrowest spectrum antimicrobial depending on sensitivities

ACTION 3: REVIEW PATIENT DAILY FOR IV TO ORAL SWITCH - check the guidance

Remember the bug doesn't know how the drug gets to it!

NHS TAYSIDE USES MORE IV
ANTIMICROBIALS THAN OTHER
HEALTH BOARDS – REDUCING IV
USE HAS MANY BENEFITS FOR
PATIENTS AND STAFF

OTHER HOSPITALS ALREADY USE
GENTAMICIN UP TO 96 HOURS
OR ARE CONSIDERING
IMPLEMENTING

ACTION 4: If IV definitely still required CAN PATIENT HAVE GENTAMICIN for 96 hours? Check the <u>guidance</u>

- Duration extended to up to 96 hours for patients with eGFR/CrCl >30 ml/min
- Many patients can even have ONE dose and then review: CKD eGFR/CrCl 20-29ml/min or AKI 1 / 2 in previous 48 hours

| Guidance   | Indication for IV Aztreonam  | Alternative options when no IV Aztreonam available  |
|--|--|---|
| Empirical Treatment Intra-abdominal sepsis and Gastrointestinal Treatment Guidance Acute Cholangitis Acute Cholecystitis Infected Pancreatitis | patient excluded from gentamicin guidance or<br>not appropriate for 96 hours of gentamicin                               | <ol> <li>Follow IVOST guidance and step down to oral if possible</li> <li>Check if patient can have up to 96 hours of gentamicin (see above)</li> <li>If IV definitely still required: IV co-trimoxazole 960mg bd +/- metronidazole 500mg tds may be suitable if patient is stable – if patient can take oral then prescribe as oral - both these antimicrobials have very good bioavailability</li> <li>IV Amoxicillin + PO/IV Metronidazole + IV Temocillin 2g tds         Note: temocillin does not cover Pseudomonas</li> <li>True penicillin allergy: IV Vancomycin + IV/PO Metronidazole + IV/PO Ciprofloxacin (refer to Fluoroquinolones Warnings document)</li> </ol> |
| Empirical Treatment Severe Hospital Acquired Pneumonia or Severe Aspiration Pneumonia  | <ul> <li>patient excluded from gentamicin guidance or<br/>not appropriate for further doses of<br/>gentamicin</li> </ul> | <ol> <li>Follow IVOST guidance and step down to oral if possible</li> <li>Check if patient can have up to 96 hours of gentamicin (see above)</li> <li>If IV definitely still required: IV co-trimoxazole 960mg bd may be suitable if patient is stable – if patient can take oral then prescribe as oral – this antimicrobial has very good bioavailability</li> <li>IV Amoxicillin + IV Temocillin 2g tds         Note: temocillin does not cover Pseudomonas     </li> <li>True penicillin allergy: IV Vancomycin + IV/PO Ciprofloxacin (refer to Fluoroquinolones Warnings document)</li> </ol>  |
| Empirical Treatment Urosepsis/Pyelonephritis   | <ul> <li>patient excluded from gentamicin guidance or<br/>not appropriate for further doses of<br/>gentamicin</li> </ul> | <ol> <li>Follow IVOST guidance and step down to oral if possible</li> <li>Check if patient can have up to 96 hours of gentamicin (see above)</li> <li>If IV definitely still required: IV co-trimoxazole 960mg bd may be suitable if patient is stable – if patient can take oral then prescribe as oral – this antimicrobial has very good bioavailability</li> <li>IV Amoxicillin + IV Temocillin 2g tds         Note: temocillin does not cover Pseudomonas</li> <li>True penicillin allergy: IV Vancomycin + IV/PO Ciprofloxacin (refer to Fluoroquinolones Warnings document)</li> </ol>   |

| Guidance   | Indication for IV Aztreonam   | Alternative options no IV Aztreonam available   |
|--|---|---|
| Empirical Treatment of Infection Guidelines for RENAL Patients                   | Severe Hospital Acquired Pneumonia Severe Aspiration Pneumonia Non PD peritonitis/Biliary Tract/Intra-abdominal complicated UTI/Pyelonephritis/Urosepsis Severe Systemic Infection – unknown source | 1. Follow IVOST guidance and step down to oral if possible 2. Check with consultant if patient can have gentamicin or co-trimoxazole 3. If option 1 or 2 not suitable consider: IV Amoxicillin + IV Temocillin 2g tds Note: temocillin does not cover Pseudomonas 4. True penicillin allergy: IV Vancomycin + IV/PO Ciprofloxacin (refer to Fluoroquinolones Warnings document) |
| Adult CF guidance  | Exacerbation of CF  | Use alternatives in line with sensitivities or discuss with ID/Microbiology   |
| Neutropenic Sepsis   | patients with penicillin allergy  | OPTIONS  1. Consider gentamicin for up to 96 hours 2. Consider ceftazidime (also provides Pseudomonas cover) 3. Ciprofloxacin (refer to Fluoroquinolones Warnings document) 4. If other options not suitable discuss with Infection Specialist  |
| Diabetic Foot Ulcer And Antibiotic Pathway for Vascular Surgery Clinical Network | patient excluded from gentamicin guidance or not appropriate for further doses of gentamicin  | OPTIONS  1. Follow IVOST guidance and step down to oral if possible  2. Check if patient can have up to 96 hours of gentamicin (see above)  3. If IV definitely still required discuss with Infection Specialist  |
| Orthopaedic Implant Associated Infections and Septic Arthritis                   | patient excluded from gentamicin guidance or not appropriate for further doses of gentamicin  | Discuss at BJI MDT or with Infection Specialist   |
| Urology Surgical Prophylaxis and Radiology Procedures Prophylaxis                | patients where gentamicin indicated but eGFR 15-30ml/min and no penicillin allergy or penicillin allergy but without history of anaphylaxis or angiodema  | IV Temocillin 1g<br>Note: temocillin does not cover Pseudomonas   |

| Vascular Surgical Prophylaxis                                      | patients with low eGFR   | IV Temocillin 1g (in combination with flucloxacillin) Note: temocillin does not cover Pseudomonas                |
|--|--|--|
|  | patients with low eGFR and penicillin allergy or MRSA positive   | <u>Ciprofloxacin</u> (in combination with vancomycin): <u>refer to Fluoroquinolones</u> <u>Warnings document</u> |
| Implantable Cardiac Electronic Device (IECD) insertion prophylaxis | patients where gentamicin indicated but eGFR 15-30ml/min and no penicillin allergy or penicillin allergy but without history of anaphylaxis or angiodema | IV Temocillin 1g<br>Note: temocillin does not cover Pseudomonas  |

Approved by AMG: Aug 2024 Review: Feb 2027