Waterford: Antimicrobial Guidelines - Antimicrobial Guideline: Appendicitis, Diverticulitis, Cholecystitis, Cholangitis

General Points

- Review previous microbiology results for resistant Gram negative bacteria or Multi-Drug Resistant Organisms (MDROs) e.g. ESBL-producers, CPE, and Vancomycin Resistant Enterococcus (VRE).
- If history of MDRO or VRE discuss patient with Clinical Microbiology.
- Consider fungal infection, see below.
- Send blood cultures, pus, fluid and/or tissue from surgical procedure for culture.
- Source control (surgical intervention and/or percutaneous drainage) is critical to the management of intra-abdominal infections other than SBP.

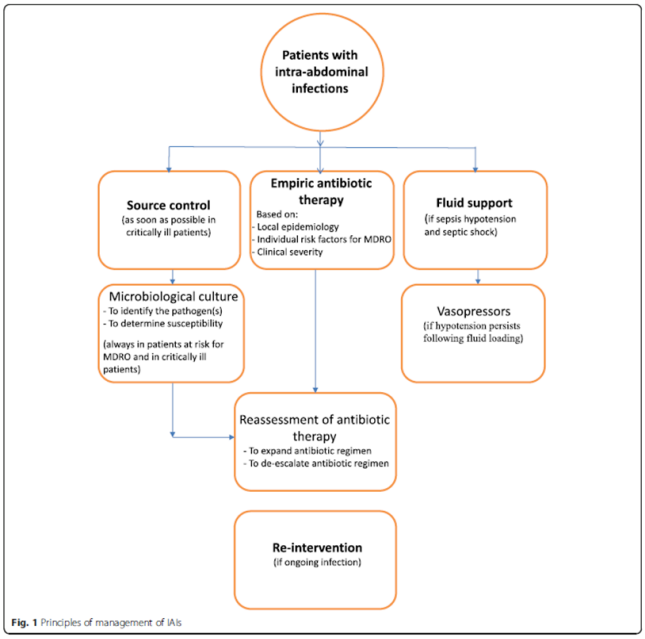

Fig. 1 Principles of management of IAIs

Source: WSES/GAIS/SIS-E/WSIS/AAST global clinical pathways for patients with intra-abdominal infections 2021

Mild Community Acquired Infection (Empiric therapy)

Co-amoxiclav 1.2g TDS IV **+/- Gentamicin** once daily IV (Please see Gentamicin dosing schedule).

Penicillin allergy

NOT IgE -mediated /anaphylaxis / severe reaction:

Cefuroxime 1.5g TDS IV and **Metronidazole** 500mg TDS IV/ 400mg TDS PO +/- **Gentamicin** once daily IV (Please see Gentamicin dosing schedule).

IgE-mediated/anaphylaxis/severe reaction:

Ciprofloxacin* 400mg BD IV/ 500mg-750mg BD PO and **Metronidazole** 500mg TDS IV/ 400mg TDS PO +/- **Gentamicin** once daily IV (Please see Gentamicin dosing schedule).

- Review need for Gentamicin daily. The use of Gentamicin in combination with other agents (e.g. co-amoxiclav) is rarely required for longer than 3 days. Discuss with clinical microbiology if required.
- If history of infection or colonisation with MRSA consider the addition of Vancomycin or Teicoplanin to the above combinations. (Please see Vancomycin / Teicoplanin dosing schedule).

* Please read the HPRA Drug Safety Alert issued in 2018 and the HPRA Drug Safety Newsletter issued in 2023 highlighting restrictions on use of fluoroquinolones (eg. ciprofloxacin, levofloxacin) due to the risk of disabling, long-lasting and potentially irreversible side effects (including tendon damage, QT prolongation, neuropathies and neuro psychiatric disorder). Use of fluoroquinolones in older patients, those with renal impairment, solid organ transplantation or on systemic corticosteroids increases the risk of tendon damage.

Moderate to Severe Community Acquired and all Hospital-Acquired Infection (Empiric therapy)

Piperacillin/Tazobactam 4.5g TDS/QDS IV (QDS dosing indication: severe infection, neutropenic sepsis or Pseudomonas aeruginosa infection)

+ Gentamicin/Amikacin once daily IV (Please see Gentamicin / Amikacin dosing schedule).

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Use **Amikacin** instead of gentamicin if history of infection or colonisation with gentamicin resistant Gram negative bacteria, severe illness or septic shock.

+ **Vancomycin** in severe infection, septic shock, or history infection/colonisation with MRSA (Please see Vancomycin dosing schedule).

Penicillin allergy

NOT IgE-mediated/anaphylaxis/severe reaction:

Ceftriaxone 2g once daily IV + **Metronidazole** 500mg TDS IV + **Gentamicin/ Amikacin** once daily IV (Please see Gentamicin / Amikacin dosing schedule).

Use **Amikacin** instead of gentamicin if history of infection or colonisation with gentamicin resistant Gram negative bacteria, severe illness or septic shock.

+ **Vancomycin** in severe infection, septic shock, or history infection/colonisation with MRSA (Please see Vancomycin dosing schedule).

IgE-mediated/anaphylaxis/severe reaction:

Ciprofloxacin* 400mg BD IV + **Metronidazole** 500mg TDS IV + **Gentamicin/ Amikacin** once daily IV (Please see Gentamicin / Amikacin dosing schedule).

Use **Amikacin** instead of gentamicin if history of infection or colonisation with gentamicin resistant Gram negative bacteria, severe illness or septic shock.

+ **Vancomycin** in severe infection, septic shock, or history infection/colonisation with MRSA. (Please see Vancomycin dosing schedule).

- Review need for Gentamicin/Amikacin daily. The use of aminoglycosides in combination with other agents (e.g. co-amoxiclav) is rarely required for longer than 3 days. Discuss with microbiology if required.

* Please read the HPRA Drug Safety Alert issued in 2018 and the HPRA Drug Safety Newsletter issued in 2023 highlighting restrictions on use of fluoroquinolones (e.g. ciprofloxacin, levofloxacin) due to the risk of disabling, long-lasting and potentially irreversible side effects (including tendon damage, QT prolongation, neuropathies and neuro psychiatric disorder). Use of fluoroquinolones in older patients, those with renal impairment, solid organ transplantation or on systemic corticosteroids increases the risk of tendon damage.