Febrile Neutropenia Algorithm for High Risk Adult Patients – MAJOR PENICILLIN ALLERGY
(AML, ALL, AlloSCT, expected ANC < 500 for ≥10 days, GVHD with steroids > 20 mg/day, alemtuzumab therapy)
Major allergy includes anaphylaxis, angioedema, immediate hives: CONFIRM ALLERGY in WAKEONE is ACCURATE (discuss with patient or family)
Review of health records is warranted. If patient has tolerated cephalosporins in past, choose cefepime and refer to ‘no allergy’ algorithm.

Sepsis? Hemodynamic instability + new organ dysfunction*

YES

Meropenem + Amikacin (A) + Vanc (V)

Discuss antibiotic choice with CAUSE delegate if patient also reports major allergy to cephalosporin

Recommend discontinuing A and V after 48 hours if hemodynamically stable, vanc criteria not met, and cultures are negative for a bacteria requiring A or V

If still febrile after 96 hours, assess antifungal prophylaxis

If posaconazole

Evaluate the following:
- Posaconazole trough
- Chest imaging
- History of azole exposure
- Pattern of breakthrough fever
- Evidence of candida infection (e.g. thrush, vaginal candidiasis, dermatitis)

If chest CT consistent with invasive mold infection and posaconazole trough is adequate for prophylaxis, consider ID consult and change posaconazole to Abelcet

Consider continuing posaconazole and monitoring if:
- Chest CT is negative
- Posaconazole trough is adequate for prophylaxis
- Single episode of breakthrough fever
- Clinically stable

Consider ID Consult if multiple episodes of breakthrough fever and work-up is negative:
- Chest/sinus CT is negative
- GM is negative
- Posaconazole trough is adequate for prophylaxis (if applicable)

If multiple episodes of breakthrough fever and/or respiratory symptoms are present, obtain chest CT. If consistent with invasive mold infection and/or GM positive, change micafungin to voriconazole

NO

Meropenem (add vanc only if specific criteria are met)**

** Vanc criteria
- Cellulitis
- Pneumonia documented radiographically
  - Obtain sputum culture or nasopharyngeal swab (to determine colonization status); recommend 7 days vanc duration for pneumonia
- Catheter-related infection
  - Chills/fever with flushing catheter, catheter site infection, positive blood culture
- MRSA colonization or prior infection

If still febrile after 96 hours, assess antifungal prophylaxis

If fluconazole

Consider changing posaconazole to micafungin if:
- Extensive history (>14 days) of azole exposure (posaconazole or fluconazole)
- Multiple episodes of breakthrough fever
- Evidence of candida infection

Initiate antifungal treatment of febrile neutropenia by changing fluconazole to micafungin

If still febrile 96 hours after switch to micafungin, evaluate:
- Respiratory symptoms
- Pattern of breakthrough fever
- Galactomannan (GM)

Continue current therapy and monitor if:
- Single episode of breakthrough fever
- No respiratory symptoms
- Negative GM
- Clinically stable

* Signs and symptoms of sepsis
- SBP <90mmHg or MAP <65mmHg
- Creatinine increase >0.5mg/dL
- Acute oliguria
- Hyperlactatemia
- Altered mental status

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