Infection prevention

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1. Quantify risk of infection

2. Treat current infection

3. Fix anatomical problems

4. Optimize host defenses

5. Non-pharmacologic local

6. Pharmacologic prophylaxis

7. Immunologic prophylaxis

8. Reduce epidemiologic exposure

9. Review immunosuppression





Monash Infection & Immunity

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What evidence do I have to assess the risk of infection in the next two years?

- Previous severe infection
- Net state of immunocompromize
 - Underlying diseases + drugs + skin/mucosal barriers
- Biomarkers (WCC, IgG)

What is the risk of being admitted to hospital with or dying from an infection?

- Low
- Medium
- High







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Has the current infection been completely treated or do I need to do something else?

- Is the diagnosis of infection is correct or is there something else contributing?
- Do the antimicrobials have the appropriate spectrum of activity?
- Is there an organism that I might be missing? (TB)
- Are the antimicrobials getting to the site of infection?
- Are the antimicrobials being given for long enough?
- How will I follow the patient to check the infection has gone?





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Recurrent skin and soft tissue infection

- Check blood supply
- Check no foreign body in situ
- Check no drainable collection
- Check infection is not deeper

Recurrent urinary tract infection

- Check for obstruction
- Check post void residual
- Check no foreign body in situ
- Check no drainable collection

Recurrent chest infection

Check for bronchial obstruction







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Is there anything I can do to improve their skin and/or mucosal integrity?

- Dental care, treatment of mucositis
- Look after the skin (education, moisturize, skin checks)
- Treat fungal nails/tinea
- Vaginal oestrogens

Is there anything that can be done to improve the care of their indwelling devices?

Is there anything I can do to improve their nutrition?







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Recurrent skin and soft tissue infection

- Elevate leg
- Treat lymphoedema
- Avoid activities that cause harm to skin
- Regular skin checks
- Education for self-management

Recurrent urinary tract infection

- Drink lots of water if able
- Double void
- Void after sex
- Wipe front to back
- Indications for seeking testing/treatment

Recurrent chest infection

- Chest physio/pulmonary rehab
- Education for self-management
- Education for respiratory virus avoidancc



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- Antimicrobial prophylaxis
 - Antibacterial
 - Antifungal (PJP, mould, yeast)
 - Antiviral (HSV/VZV/CMV)
- Emergency antibiotic supply at home





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Vaccination

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- Influenza
- Pneumococcal
- Pertussis
- Other
- Cocoon vaccination
- IVIG if hypogammaglobulinaemic





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Does the patient have a good understanding of the ways in which to avoid exposure to infection?

- Respiratory pathogen avoidance (masks, hands, contacts)
- Gastrointestinal pathogen avoidance (food, water)
- Sick contacts
- Travel
- Animals
- Food and Water
- Education







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