

# Infections in immunocompromised host



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# Infections in immunocompromised host

- Primary immunodeficiencies
- Secondary immunodeficiencies

## Diagnosis, pathogen, treatment

- : Febrile neutropenia
- : Intravascular catheter related infection
- : Cerebrospinal fluid shunts
- : Urethral catheters
- : Splenectomy
- : Hematopoietic stem cell transplantation
- : Solid organ transplantation



# Primary immunodeficiencies

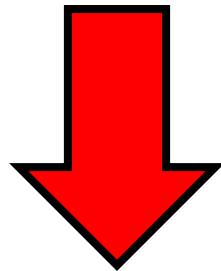
Type	Disease
Antibody	Common variable immunodeficiency IgA deficiency, IgG subclass deficiencies Immunoglobulin def with increased IgM Transient hypogammaglobulinemia of infancy X-linked agammaglobulinemia
Cellular & combined	Ataxia telangiectasia, DiGeorge syndrome SCID, Wiskott Aldrich syndrome
Phagocyte	Cyclic neutropenia, Leukocyte adhesion deficiency, Chronic granulomatous disease
Complement	Deficiencies of C3, C1, C4, C2, factor I, factor H Deficiencies of C5-C9, Properdin, factor D, factor B

# Febrile neutropenia: definition

- Oral temp  $\geq 38.3$  °C (or  $\geq 38.0$  °C for >1 hour)
- AND
- ANC  $< 500$  cells/mm<sup>3</sup> (or expected to  $< 500$  cells/mm<sup>3</sup> during the next 48 hours)

# Causes of febrile neutropenia

- Cancer chemotherapy (esp. AML, relapse ALL)
- Pre-transplant regimens (HSCT)
- Post-transplant regimens (HSCT, SOT)
- Prevent GVHD
- Reduce graft rejection



Febrile neutropenia