



คณะแพทยศาสตร์
จุฬาลงกรณ์มหาวิทยาลัย



Prophylaxis and Prevention in Immunocompromised Children

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Outline



Prophylaxis and Prevention in Immunocompromised Children

Prophylaxis and prevention



Immunization



Antimicrobial prophylaxis

Immunocompromised children

- Primary immunodeficiency
- Secondary immunodeficiency
 - HIV infection/AIDS
 - Cancer
 - Post transplant
 - Congenital asplenia, congenital polysplenia, functional asplenia
 - Chronic steroid users



Case scenario



 SCID with COVID-19 infection

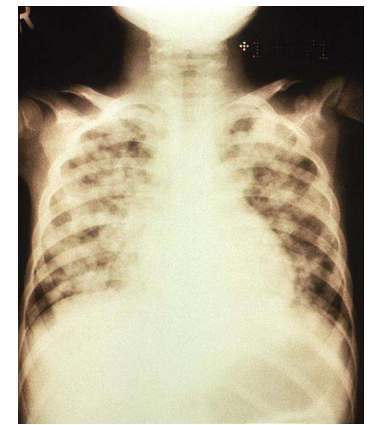
3-mo-old HIV-infected infant with PCP pneumonia



HIV adolescents with anogenital condyloma → CA vulva



Disseminated varicella in a child with Hodgkin disease



Red Book: 2021–2024 Report of the Committee on Infectious Diseases



Post liver transplantation with measles pneumonia

How to decrease morbidity and mortality from infections in immunocompromised patients 



General Principles




Degree of immune suppression: **High-level immunosuppression**

Combined Primary immunodeficiency **B** & **T**

HIV / AIDS
CD4 <15% (age 1-13 years)
<200 cells/mm³ (age ≥ 14 years)

SOT
Within **2** months
HSCT
Within **2-3** months

- 
- Chemotherapy
 - Biologic immune modulators
 - Chemotherapeutic agents & combination immunosuppressants

Corticosteroid
≥20 mg or
≥2 mg/kg/day (BW <10 kg)
of prednisone or equivalent
≥14 days



General Principles



Timing of vaccination

- Vaccinations should be administered before immunosuppression, when feasible;

Live vaccines **>4** weeks

before initiation of immunosuppression or transplantation

Inactivated vaccines **>2** weeks

- Live vaccines should be deferred until after recovery and/or reduction of profound immunosuppression
- Annual vaccination with inactivated influenza vaccine (IIV) is recommended for immunocompromised patients