POST EXPOSURE HIV/HBV PROPHYLAXIS

Mukesh Bairwa, Sarthak Gaur, Abhishek Rai

Management of Exposure site	
Skin if pierced by needlestick or sharp instrument	• Immediately wash with soap and water. • Do not use antiseptics , alcohol, betadine. • Do not scrub.
Eye	• Irrigate exposed eye immediately with water or normal saline. • If wearing contact lenses, leave them in place while irrigating. • Do not use soap or disinfectant on eye.

Baseline investigations after needle stick injury	**CBC , LFT , KFT , Viral markers**
Follow up	Repeat CBC , LFT, KFT , Viral markers at 6 ,12 and 24 weeks.

HIV PEP Guidelines	**Details**
Initiation	As soon as possible preferably within 72 hours post-exposure
Duration	28 days
Recommended Regimen	Tenofovir(300 mg) + Lamivudine (300 mg) + Dolutegravir (50 mg) FDC 1 tab OD
Follow up	HIV serology at 6,12 and 24 weeks.

HBsAg PEP Guidelines (never/ incompletely vaccinated)	**Details**
Initiation	Prefrerably within 24 hours of exposure , can be given upto 72 hours.
Treatment	HBIG: 0.06 mL/kg IM Hepatitis B Vaccine: 3 doses (1 ml IM at 0,1,6 months)
Follow-Up	Check seroconversion (Anti HBS titre) at 1-2 months after final vaccine dose.

Previously vaccinated	**Details**
Anti- Hbs titre < 10 IU/L	HBIG: 0.06 mL/kg IM Hepatitis B Vaccine: 3 doses (1 ml IM at 0,1,6 months)
Anti- Hbs titre > 10 IU/L	Nothing required

To prevent mother to child transmission	
Initiation	Within 12 hours of child birth.
Treatment	Hepatitis B vaccine (0.5 ml intramuscular) Hepatitis B immunoglobulin (0.5 ml Intramuscular at a different anatomical site

RIGHT PROPHYLACTIC USE OF ANTIMICROBIALS IN MEDICAL CONDITIONS

Prasan K Panda, Vinay Tulsian , Gaurav Karna

Disease	Indication	Antimicrobial agent	Dose and duration of therapy
Exposure(pre/post) prophylaxis			
Diphtheria	Close contacts exposed to oral or respiratory secretions	Erythromycin	250 mg QID for 7 to 10 days
Anthrax	Documented or suspected exposure to aerosolized B. anthracis	Doxycycline	100mg BD for 42 to 60 days
Meningococcus	Close contacts of sporadic cases of N. meningitidis	Rifampicin	600 mg BD for 2 days
H1N1	High risk population (pregnant women, age >65 years, chronic steroid use, lung, heart, liver or kidney disease, diabetes, cancer or HIV/AIDS)	Oseltamivir	75 mg OD for 10 days
Bite wound infection	High risk bites (puncture wound, immunocompromised patients, crush injuries, involving deeper structure, bone or joint)	Amoxicillin- clavulanate	500/125mg TDS for 3 to 5 days
Needle stick injury (HIV)	Exposure code 1 or more with positive or unknown Source person's HIV status (see also needle stick injury chapter)	Tenofovir 300mg + lamivudine 300 mg + dolutegravir 50 mg	28 days
Sexually transmitted infections	Gay and bisexual men and transgender women who have had chlamydia, syphilis, or gonorrhoea in the last 12 months	Doxycycline	200mg single dose
Malaria (Travel to endemic areas)	Travel to a malaria endemic region	Atovaquone-praguanil Doxycycline 100 mg daily Chloroquine 300mg once daily	2 days before travel; till 4 wks after travel 2 days before travel; till 4 wks after travel 2 wks before travel; till 4 wks after travel
Traveler's diarrhoea	Short term (e.g., <2 weeks) travellers with underlying medical condition (severe inflammatory bowel, immunocompromised state or vascular, severe cardiac or renal disease)	Rifaximin	200 mg thrice daily
Chronic systemic glucocorticoid use	Glucocorticoids doses above 20 mg/day equivalent for > 4 weeks and have another cause of immunocompromise (haematological malignancy or another immunosuppressive agent)	Cotrimoxazole (trimethoprim-sulfamethoxazole)	Double strength tablet once daily as long as risk factors present

Enzler MJ, Berbari E, Osmon DR. Antimicrobial prophylaxis in adults. InMayo Clinic Proceedings 2011 Jul 1 (Vol. 86, No. 7, pp. 686-701). Elsevier.

RIGHT PROPHYLACTIC USE OF ANTIMICROBIALS IN MEDICAL CONDITIONS

DISEASE	INDICATION	ANTIMICOBIAL	DOSE/DURATION
Immunocompromised patient prophylaxis			
People Living with HIV (PLHIV)	**1. Pneumocystis pneumonia** - **CD4 count <350 cells/mm3** - **WHO clinical stage 3 and 4** - **After PCP treatment till CD4 count >350 for 6 months**	**Cotrimoxazole (trimethoprim-sulfamethoxazole)**	1 DS tablet OD, Till CD4 >350 cells/mm 3 on 2 occasions 6 months apart with an ascending trend and No WHO clinical stage 3 and 4 conditions
	2. Tuberculosis **- All adults with negative 4s** **- Children >1 year, with –ve 4s symptoms** **- Children <1 year, in contact with TB but unlikely to have active TB**	**Isoniazid**	10mg/kg (max 300mg) plus pyridoxine 50 mg daily for 6 months
	3. Cryptococcal disease (if CrAg test is not available, may be given to HIV-positive whose CD4 cell count <100 cells/mm3)	**Fluconazole**	100mg OD for 12 months
Neutropenia	High risk for Febrile Neutropenia or profound, protracted neutropenia (eg, most patients with AML/myelodysplastic syndromes)	**Fluoroquinolone plus oral triazole or parenteral echinocandin**	During period of expected neutropenia

Enzler MJ, Berbari E, Osmon DR. Antimicrobial prophylaxis in adults. InMayo Clinic Proceedings 2011 Jul 1 (Vol. 86, No. 7, pp. 686-701). Elsevier.

RIGHT PROPHYLACTIC USE OF ANTIMICROBIALS IN MEDICAL CONDITIONS

Disease	Indication	Antimicrobial agent	Dose and duration of therapy
Preventive prophylaxis in chronic/recurrent/ latent conditions			
Rheumatic fever	1. Rheumatic fever without carditis	Benzathine penicillin G 1.2 MU every 3 to 4 weeks or Erythromycin 250 mg BD	For 5 years after last attack or 21 years of age (whichever is longer)
	2. With carditis but no residual valvular disease		For 10 years after last attack or 21 years of age
	3. With persistent valvular disease, evident clinically or on ECHO		For 10 years after last attack or 40 years of age
Infective endocarditis	Dental procedures where manipulation of gingival tissue or the periapical region or perforation of oral mucosa in high-risk cardiac lesions	Amoxicillin	2 grams orally one hour before procedure
COPD	COPD with frequent exacerbations (≥2 per year) despite optimal medical management	Azithromycin	250 mg three times per week for 12 months
Bronchiectasis	Recurrent exacerbations (≥3 per year)	Azithromycin	500 mg thrice weekly for 6/12 months or indefinitely
Asplenic or hyposplenic individuals	1. Sickle cell disease	*Penicillin V/ Erythromycin	*250mg BD until age 5 years (125 mg BD for age < 3years)
	2. Concurrent immunocompromised state	Penicillin V/ Erythromycin	Until age 18 years and often as long as immunocompromised state lasts
	3. History of sepsis/ severe infection caused by encapsulated organisms	Penicillin V/ Erythromycin	Lifelong prophylaxis
Spontaneous bacterial peritonitis	1. Acute gastrointestinal bleeding	*Ceftriaxone (ciprofloxacin/Cotrimoxazole)	*1 gram IV BD for 7 days
	2. Ascitic fluid protein <1.5gm/dl with any one of impaired renal (S. creatinine ≥1.2mg/dl or BUN ≥25mg/dl) or liver function (CTP ≥9 + bilirubin ≥3mg/dl) or S. sodium <130 mEq/L	Ciprofloxacin/ norfloxacin	500 mg OD/ 400 mg OD as long as ascites present
	3. Prior history of SBP	Ciprofloxacin/ norfloxacin	500 mg OD/ 400 mg OD for Lifelong
Recurrent Hepatic Encephalopathy	Adjunct to lactulose as secondary prophylaxis following ≥1 additional episodes of overt HE within 6 months of the first one	Rifaximin	550mg BD (discontinue after improvement of liver function and precipitating factor)
Recurrent urinary tract infection	Non pregnant women with recurrent (≥3 per year), uncomplicated UTIs	Nitrofurantoin, cotrimoxazole or fluroquinolones	6 to 12 months
Tuberculosis infection/ LTBI	1. People living with HIV; TB hypersensitivity diseases like Poncet	Refer to section on PLHIV	
	2. Household contacts (HHC) < 5 years of PTB patients	Isoniazid	10mg/kg (max 300mg) plus pyridoxine 50 mg daily for 6 months
	3. HHC (> 5 years) of PTB patients (among positive TST/IFRA after ruling out TB disease)	Isoniazid and Rifapentine (HP) Isoniazid	Once weekly for 3 months Daily for 6 months
	4. Others risk groups- immunosuppressive therapy, silicosis, anti TNF treatment, dialysis, transplantation (among positive TST/IFRA)	Isoniazid and Rifapentine (HP) Isoniazid	Once weekly for 3 months Daily for 6 months