

HIV Related Opportunistic Infections

Opportunistic Infection	Causative agent or pathophysiology	Symptomatology	Treatment
<i>Pneumocystis carinii</i> pneumonia	<i>Pneumocystis carinii</i>	dyspnea on exertion, tachypnea, persistent dry cough, fever, fatigue, weight loss, lung crackles	<u>Trimethoprim/sulfamethoxazole</u> (Bactrim, Septra) Monitor I&O, Monitor CBC, urinalysis, bilirubin, creatinine, and alkaline phosphatase. Assess for sore throat, pallor, purpura, jaundice and weakness.
Toxoplasmosis encephalitis	<i>Toxoplasma gondii</i> (contact with contaminated cat feces, or ingesting infected, undercooked meat)	Subtle changes in mental status, neurologic deficits, headaches, fever, and difficulty with speech, gait and vision, seizures, lethargy, confusion. NOTE: The nurse should perform a comprehensive baseline mental status examination and monitor client to detect subtle changes.	<u>Pentamidine Isethionate</u> (Pentam) Monitor BP, heart rate and rhythm. Administer with client lying down, monitor for hypoglycemia, liver function and CBC. <u>Pyrimethamine</u> (Daraprim) Administer with food or milk. Monitor CBC and platelets. <u>Sulfadiazine / Dapsone</u> Monitor urine output, CBC Encourage fluids. Advise client to avoid sun, assess for sore throat, pallor, purpura, jaundice, weakness.

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Cryptosporidiosis (gastroenteritis) Candidiasis (Candida stomatitis or esophagitis)	<i>Cryptosporidium</i> organisms <i>Candida albicans</i> Regulatory mechanisms can no longer control fungal overgrowth.	Mild diarrhea to a cholera-like syndrome with wasting and electrolyte imbalance. Often the nurse notes voluminous diarrhea, with a loss of up to 15-20 L/day c/o food tastes "funny," mouth pain, difficulty in swallowing, and retrosternal pain. Diagnosis is made by endoscopic biopsy and culture.	<u>Metronidazole</u> (Flagyl) Administer with food or milk. Teach client to avoid alcohol during treatment. Assess for dry mouth, dizziness, fungal infection. Esophagitis is diagnosed by endoscopic biopsy and culture. <u>Ketoconazole</u> (Nizoral) Administer with food or milk. Avoid antacids for 2 hours. Teach client to avoid sun and alcohol during treatment. Monitor hepatic function. <u>Fluconazole</u> (Diflucan) Monitor hepatic function. Assess for abdominal pain, fever or diarrhea. <u>Amphotericin B</u> (Fungizone) Assess renal function, assess infusion site, assess CBC
<i>Mycobacterium avium</i> intracellular complex	<i>Mycobacterium intracellulare</i> or <i>avium</i>	Affects the respiratory or gastrointestinal tract Positive cultures may be obtained from lymph nodes, bone marrow, and blood. Fever, debility, weight loss, malaise, and sometimes lymphadenopathy or organ disease	<u>Rifampin</u> (Rifadin): Assess breath sounds, sputum, monitor hepatic function, CBC, May turn body secretions orange. <u>Ethambutol</u> (Myambutol): Assess vision changes, assess hepatic and renal function, CBC and urinalysis <u>Ciprofloxacin</u> (Cipro): Monitor I/O, Encourage fluids, Administer on an empty stomach, teach client to avoid sun, assess for dizziness, fungal infection. Infuse over 1 hour <u>Clofazimine</u> (Lamprene): Assess vision changes, dizziness, drowsiness, client to avoid sun, use lotion for dry skin, monitor hepatic and renal function.

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Cytomegalovirus	Cytomegalovirus	fever, malaise, weight loss, fatigue, lymphadenopathy. Colitis with diarrhea, abdominal bloating and discomfort, and weight loss. Encephalitis, pneumonitis, adrenalitis, hepatitis, and disseminated infection.	<u>Gnaciclovir</u> Cytovene: Monitor neutrophil and platelet count, infuse over 1 hour, and give with food. This medication suppresses bone marrow activity.
Histoplasmosis	Histoplasma capsulatum Begins as a respiratory infection and progresses to widespread infection.	Dyspnea, fever, cough, and weight loss. The spleen, liver and lymph nodes may be enlarged. Systemic symptoms incl. fever, chills, night sweats, weight loss, and anorexia.	Ketoconazole (Nizoral): Administer with food or milk, Avoid antacids for 2 hours, teach client to avoid sun and alcohol during treatment, monitor hepatic function.
Tuberculosis	Mycobacterium tuberculosis	Cough, dyspnea, and chest pain.	Nurse or RT giving aerosol treatment that induces coughing should have a PPD every 6 months. Rifampin (Rifadin): Assess breath sounds, sputum, monitor hepatic function, CBC, May turn body secretions orange. Ethambutol (Myambutol): Assess vision changes, assess hepatic and renal function, CBC and urinalysis Pyrazinamide: Monitor hepatic function, assess temperature every 4 hours. Isoniazid (Laniazid, Isotamine): Administer on an empty stomach, Monitor hepatic function, assess for vision changes. Instruct client to avoid alcohol and tyramine-containing foods.

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Malignancies	Causative agent or pathophysiology	Symptomatology	Treatment
Kaposi's sarcoma	Most common malignancy assoc. with AIDS The lesions can occur anywhere on the body.	KS develops as small, purplish brown, raised lesions that are usually not painful or pruritic.	The nurse assesses the lesions for number, size, and location and monitors their progression. KS is diagnosed by biopsy and histologic exam of the lesion. Treated with radiation therapy, intralesional chemotherapy, or cryotherapy. Also interferon-alpha, and interferon-alpha plus zidovudine. Analgesics, comfort measures. Keep lesions clean and dry to prevent secondary infection. Monitor for side effects.
Malignant lymphomas	This cancer originates in a single lymph node or a single chain of nodes. The lymphoid tissues undergo malignant transformation. Usually initiating some inflammatory processes.	weight loss, fever, night sweats	External radiation, chemotherapy. Monitor for side effects.

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