

PALLIATIVE CARE TIPS

Issue # 6 Infections

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Diagnosis of infection in palliative patients depends in part on recognizing the classical signs and symptoms of infection, namely: fever, leukocytosis and localizing symptom of infections such as cough and dysuria or inflammatory signs such as, localized erythema. However, these symptoms may be blunted in frail palliative patients who may not be able to mount an inflammatory response. And, some of these symptoms – for example, fever and leukocytosis – may also be caused by neoplasia. Therefore, other secondary signs should be looked for, such as: delirium, rapid functional decline, tachycardia and tachypnea, hypotension, oliguria and abruptly increasing pain. Blood cultures, if positive, are diagnostic (with the exception of Staphylococcal epidermidis, which *may* be a skin contaminant); however, false negatives are frequent and because results are not immediately available, they should not be the sole factor determining treatment. Both sputum and urine can be colonized in the absence of infection and, therefore, positive results must be interpreted in clinical context.

Decision to treat. Whether infections should be treated with antibiotics depends on the patients' values and disease stage. If life-prolongation is deemed appropriate, then the infection should be treated. Risk versus benefit will need to be considered especially with escalation to more toxic anti-microbial regimes. Treating infection may also be the most appropriate means of symptom control when life-prolongation is not the goal. For example, uncontrolled pain in an ulcerated head and neck cancer may respond to antibiotic therapy and treating pneumonia may relieve dyspnea.

Treatment. Antibiotics can be given either orally or intravenously. Oral administration is more convenient, especially in the home setting. Cotrimoxazole, Metronidazole, quinolones and Clindamycin, all have high oral bio-availability in normal subjects. However, the effectiveness of oral antibiotics for initial treatment of sepsis has to date only been studied in low risk patients. Many cancer patients have unreliable oral absorption because of nausea and vomiting or a disrupted gastrointestinal tract. Intramuscular injections are avoided because of the risk of haematoma or sterile abscess formation. Guidelines for initial antibiotic therapy can be found in manuals such as Sanford's or the Medical Letter.

Symptomatic fevers should be treated with Acetaminophen. Regular administration will help avoid temperature swings which are a major source of discomfort. External cooling through fans or ice without lowering the temperature set point will increase shivering and patient discomfort. Fluids should be cautiously given to counteract third spacing and preserve renal function. Because cachectic patients are prone to pulmonary edema, fluid status should be monitored frequently.

If the infection does not respond to initial therapy, the following should be considered:

1. Resistant or super-imposed, secondary, infection. The patient should be re-cultured and the antibiotic changed as appropriate.
2. Abscess formation.
3. Atypical infection (fungal, pneumocystis, tuberculosis)
4. Paraneoplastic syndrome
5. Drug fever
6. Re-examine the balance between benefit and harm in the context of limited survival time

REMEMBER: For referrals, questions, or telephone consultations call 496-1300 weekdays and weekends.

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