

## Journal watch

### Antibiotic use during the last days of life in cancer patients

OH D.Y., KIM J.H., KIM D.W., IM S.A., KIM T.Y., HEO D.S., BANG Y.J., KIM N.K. (2006). *European Journal of Cancer Care*, 15, 74-79.

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**Abstract:** the purpose of this study is to document infection and to better understand current practice relating to antibiotic use and its effect in terminal cancer patients. we retrospectively reviewed patients with terminal stage cancer who were admitted to Seoul National University Boramae Hospital for symptom control only, and who finally died between March 2003 and April 2004. A total of 104 patients were enrolled. Mean duration from admission to death was 31.2days. A total of 104 patients (75.2%) experienced a febrile episode, and physicians considered 113 patients (80.1%) developed a clinical infection. Total 119 patients (84.4%) received antibiotics. For 90 patients (63.8%), antibiotics were used until the day of death. After using antibiotics, 48% of fevers were controlled, and 31% of organisms-proven cases were resolved. Symptomatic improvement of infection was achieved in 18 patients (15.1%), but 66 patients (55.4) showed no improvement. Improved leucocytosis was achieved by 17% and C Reactive Protein elevation by 29%. In conclusion, our study reveals a high rate of infection and a high rate of antibiotic prescription during the last month of life in cancer patients. Further study should be undertaken to clarify the benefit of antibiotics in terminal stage cancer patients.

**Comments:**

#### **Strengths:**

- Good sample size.
- Same disease trajectory( terminally ill patients).
- Consecutively selected patients.

#### **Weaknesses:**

- Retrospective study.
- Physicians were residents and not specialists to evaluate patients clinically.
- Some patients were on steroids, and if that is a factor in developing leucocytosis and not the infection.
- The sample had patients with or without invasive devices, and if that was a factor for developing an infection.
- Some patients received antibiotics without definite evidence of infection.
- Not all patients were symptomatic at the time of antibiotics administration.
- Fever was the main factor for antibiotics use. Other factors could have contributed in fever development.

- **Leukocytosis is not specific for infection and CRP has no value in the deferential diagnosis of fever in cancer patients. And fever is not specific for an infection.**

**Relevance to Palliative Care:**

- **Increase in WBC/ leucocytosis is common in the last stage of life in cancer patients. We need to know what the patient and family want regarding the use of antibiotics in the last month or stage of life. We need to explain that antibiotics do not prolong life.**
- **There are no guidelines on the use of antibiotics in terminal cancer patients compared to non cancer patients. This issue needs further exploration.**