

FAST FACTS AND CONCEPTS #13 DETERMINING PROGNOSIS IN ADVANCED CANCER

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Background *How long do I have, Doc?* is among the most common questions asked by cancer patients, especially when informed that there are no further effective anti-neoplastic treatment options. Although prognostication is not an exact science, there are data to help clinicians provide useful information to patients and families – information critical to making realistic end-of-life decisions and referrals for home hospice service (see *Fast Fact #30*).

Performance Status The single most important predictive factor in cancer is *Performance Status* ('functional ability,' 'functional status'): a measure of how much a patient can do for themselves, their activity and energy level. Patients with solid tumors typically lose ~ 70% of their functional ability in the last 3 months of life. The most common scales used to measure functional ability are the Karnofsky Index (100 = normal; 0 = dead) and the ECOG scale (Eastern Cooperative Oncology Group), (0 = normal; 5 = dead). A median survival of 3 months roughly correlates with a Karnofsky score ≤ 40 or ECOG ≥ 3 . Newer prognostic scales have been developed to help provide prognostic information (See *Fast Facts #124, 125*).

The simplest method to assess functional ability is to ask patients: *How do you spend your time? How much time do you spend in a chair or lying down?* If the response is $>50\%$ of the time, and is increasing, you can roughly estimate the prognosis at 3 months or less. Survival time tends to decrease further with increasing numbers of physical symptoms, especially dyspnea, if secondary to the cancer.

Other Factors Several common cancer syndromes have well-documented short median survival times:

- Malignant hypercalcemia: 8 weeks, except newly diagnosed breast cancer or myeloma (see *Fast Fact #151*)
- Malignant pericardial effusion: 8 weeks (see *Fast Fact #209*)
- Carcinomatous meningitis: 8-12 weeks (see *Fast Fact #135*)
- Multiple brain metastases: 1-2 months without radiation; 3-6 months with radiation.
- Malignant ascites (see *Fast Fact #176*), malignant pleural effusion (#209), or malignant bowel obstruction: < 6 months.
- Modified Glasgow Prognostic Score (mGPS): multiple studies have shown that an increased mGPS -- meaning an elevated serum c-reactive protein and a reduced serum albumin -- is associated with a reduced cancer specific survival curve irrespective of cancer type.

Other Comments In general, a patient with metastatic solid cancer, acute leukemia or high-grade lymphoma, who will not be receiving systemic chemotherapy (for whatever reason), has a prognosis of *less than 6 months*. Notable exceptions to this are patients with metastatic breast or prostate cancer with good performance status, as these cancers may have an indolent course. In these patients additional features suggesting short prognosis are needed (declining functional status, dyspnea, weight loss).

Discussing Prognosis When discussing prognosis with patients/families, the following four step approach is recommended: *Preparation; Content; Patient's Response; Close*. Remember to:

- Confirm that the patient/family are ready to hear prognostic information.
- Present information using a range: *a few days to weeks; 2-4 months*, etc.
- Allow silence after you provide information; respond to emotion (see *Fast Fact #29*).
- Use prognostic information for eliciting end-of-life goals (see *Fast Fact #65*).

References

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