Prognostic Factors in Advanced Cancer

The Research Network of the European Association for Palliative Care

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Introduction

- **Aim:**

  to provide evidence-based recommendations on the use of prognostic factors to determine length of survival in advanced cancer patients.

- **Defining Group Membership**:
  - palliative care clinical experience
  - prognostic cancer studies
  - epidemiological, statistical, nursing, sociological and philosophical opinions were available

Material and Methods

- **Identifying the Target Population:** studies in which median survival of the group was 90 days. Surgical series were excluded
- **Defining the Key Questions:**
  - clinical impression
  - signs and symptoms psycho-social factors and QoL
  - laboratory parameters,
  - prognostic scores.
- **Systematic Literature Search:** The search for relevant articles was performed on Medline and Embase databases
- **Assigning the Level of Evidence:**

  The prognostic strength of each predictor examined was described considering its hazard ratio and CIs was based on the type and methodological quality of the study.

Material and Methods (II)

Literature Search Strategy: (limits: human English)

Advanced cancer	**neoplasm** (MesH) OR **cancer** (tw) OR **tumor** (tw) OR **tumour** (tw) OR **oncolog*** (tw) AND **terminal care** (MesH) OR **terminally ill** (Mesh) OR **palliative care** (Mesh) OR **hospices** (MesH)
Prognosis	**incidence** (MesH) OR **mortality** (MesH) OR **follow-up studies** (MesH) OR **mortality** (subheading) OR **prognosis*** (tw) OR predict (tw) OR course (tw)
Each topic	**prediction** (MesH and tw) **symptoms** OR **sings** OR **psychosocial** OR **QoL** (MesH and tw) **biological factors** (MesH and tw) **prognostic score** (tw) OR prognostic index (tw)

Material and Methods (III)

Checklist of Quality Criteria for Study Evaluation:

- Prospective Design
- Well-defined cohort of patients
- Random patient selection
- Loss of follow –up < 20%
- Deaths/potential predictors $\geq$ 10
- Prognostic variables fully defined
- Reliable measurement of outcome (date of death)

Material and Methods (IV)

Levels of evidence

I: Impact studies with low risk of bias or homogeneous meta-analyses

II: Heterogeneous meta-analysis or confirmatory studies with low risk of bias

III: Exploratory studies with low risk of bias

IV: Any type of study with a high risk of bias/ investigative sturdies/ non-analytic studies

V: Experts' opinion

Grading of strength of the recommendation:

A: Consistent level I or II studies

B: Consistent level III or one level II studies

C: One level III study or consistent level IV studies

D: Level V evidence or inconsistent or 8inconclusive studies of any level

Results

38 studies were evaluated

- Clinical prediction 16/59 QL: 7-4
- Signs, symptoms, psycho-social factors and QoL 20/25 QL: 6-4
- Biological factors: 9/28 QL: 7-3
- Prognostic scores: 8/33

EAPC Recommendations

1. In ACP, the decisions of physicians should consider both quality of life and life expectancy (grade D)
2. Clinical prediction of survival is a valid tool for obtaining a general prognosis (grade A), but it is not very accurate. Its use is recommended in combination with other prognostic factors (grade A)
3. Clinicians can use cancer anorexia-cachexia syndrome (grade B), dyspnea (grade B), and cognitive failure or delirium (grade B) as predictors of life expectancy.

EAPC Recommendations

4. Clinicians can use leukocytosis (grade B), lymphocytopenia (grade B), and high C-reactive protein (grade B) as predictors of life expectancy.
5. Clinicians can use prognostic scores to make a rapid prediction and identify patients with significantly different life expectancies (grade A).
6. Patients have the right to either be informed or not be informed about their prognosis. (grade D)