

# Indicators of integration of oncology and palliative care programs: an international consensus

D. Hui, S. Bansal, F. Strasser, T. Morita, A. Caraceni, M. Davis, N. Cherny, S. Kaasa, D. Currow, A. Abernethy, C. Nekolaichuk & E. Bruera  
*Annals of Oncology*, in press, DOI:10.1093/annonc/mdv269 [published July 9, 2015]

**Prepared by:** Cheryl Nekolaichuk, PhD, R. Psych.  
**Reviewed:** Tertiary Palliative Care Unit 43, Grey Nuns Community Hospital  
August 4, 2015

## Abstract

**Background:** Recently, the concept of integrating oncology and palliative care has gained wide professional and scientific support; however, a global consensus on what constitutes integration is unavailable. We conducted a Delphi Survey to develop a consensus list of indicators on integration of specialty palliative care and oncology programs for advanced cancer patients in hospitals with  $\geq 100$  beds.  
**Methods:** International experts on integration rated a list of indicators on integration over three iterative rounds under five categories: clinical structure, processes, outcomes, education, and research. Consensus was defined a priori by an agreement of  $\geq 70\%$ . Major criteria (i.e. most relevant and important indicators) were subsequently identified.

**Results:** Among 47 experts surveyed, 46 (98%), 45 (96%), and 45 (96%) responded over the three rounds. Nineteen (40%) were female, 24 (51%) were from North America, and 14 (30%) were from Europe. Sixteen (34%), 7 (15%), and 25 (53%) practiced palliative care, oncology, and both specialties, respectively. After three rounds of deliberation, the panelists reached consensus on 13 major and 30 minor indicators. Major indicators included two related to structure (consensus 95%–98%), four on processes (88%–98%), three on outcomes (88%–91%), and four on education (93%–100%). The major indicators were considered to be clearly stated (9.8/10), objective (9.4/10), amenable to accurate coding (9.5/10), and applicable to their own countries (9.4/10).

**Conclusions:** Our international experts reached broad consensus on a list of indicators of integration, which may be used to identify centers with a high level of integration, and facilitate benchmarking, quality improvement, and research.

## Strengths:

- Commonly used Delphi study design, which was well developed and would be easy to replicate
- Involvement of 47 key international experts, using clear selection criteria
- Pre-defined consensus ( $\geq 70\%$  agreement) established a priori
- High participant response rate over three rounds, with the assistance of e-mail reminders

## Weaknesses:

- Limitations as identified by authors
  - Despite a relatively large sample size, some countries and continents outside of North America and Europe were under-represented
  - Sample was limited to physicians only
  - Indicators were limited to mid- to large-size hospitals with at least 100 beds, with panel members predominantly working in acute care and academic settings
- 65% (n=30) of participants were predominantly working in academic medicine, with 35% (n=16) working in clinical practice

## Relevance to Palliative Care:

Integration of palliative care and oncology is a timely topic, with some studies recommending early referrals to palliative care. The identification of major indicators of integration, based on an international consensus of key experts, is potentially beneficial for program development, delivery of services and quality improvement. Given the limitations of the study design, the indicators identified in this manuscript would be most relevant for integration of palliative care services within tertiary care hospitals and cancer centres.