Integration of Oncology and Palliative Care: A Systematic Review

David Hui, Yu Jung Kim, Ji Chan Park, Yi Zhang, Florian Strasser, Nathan Cherny, Stein Kaasa, Mellar P Davis & Eduardo Bruera

BACKGROUND
Both the American Society of Clinical Oncology and the European Society for Medical Oncology strongly endorse integrating oncology and palliative care (PC); however, a global consensus on what constitutes integration is currently lacking. To better understand what integration entails, we conducted a systematic review to identify articles addressing the clinical, educational, research, and administrative indicators of integration.

MATERIALS AND METHODS
We searched Ovid MEDLINE and Ovid EMBase between 1948 and 2013. Two researchers independently reviewed each citation for inclusion and extracted the indicators related to integration. The inter-rater agreement was high (κ = 0.96, p < .001).

RESULTS
Of the 431 publications in our initial search, 101 were included. A majority were review articles (58%) published in oncology journals (59%) and in or after 2010 (64%, p < .001). A total of 55 articles (54%), 33 articles (32%), 24 articles (24%), and 14 articles (14%) discussed the role of outpatient clinics, community-based care, PC units, and inpatient consultation teams in integration, respectively. Process indicators of integration include interdisciplinary PC teams (n = 72), simultaneous care approach (n = 71), routine symptom screening (n = 25), PC guidelines (n = 33), care pathways (n = 11), and combined tumor boards (n = 10). A total of 66 articles (65%) mentioned early involvement of PC, 18 (18%) provided a specific timing, and 28 (28%) discussed referral criteria. A total of 45 articles (45%), 20 articles (20%), and 66 articles (65%) discussed 8, 4, and 9 indicators related to the educational, research, and administrative aspects of integration, respectively.

CONCLUSION
Integration was a heterogeneously defined concept. Our systematic review highlighted 38 clinical, educational, research, and administrative indicators. With further refinement, these indicators may facilitate assessment of the level of integration of oncology and PC.