Title: Validity and Reliability of Pediatric Palliative Care Assessment Tool
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Introduction: The American Academy of Pediatrics defines palliative care as "the relief of symptoms (e.g. pain, dyspnea) and conditions (e.g. loneliness) that cause distress and detract from the child's enjoyment of life." (1) As members of a multidisciplinary team, pediatric anesthesiologists are uniquely qualified to address the challenges of symptom management. Unfortunately, misunderstanding of and resistance to palliative care often leads to late identification of children in need. In response to these obstacles a Pediatric Advanced NeeDs Assessment (PANDA) screening tool was designed and tested.
Methods: The PANDA screening tool (figure 1) was constructed to detected children at increased risk for life-threatening and life-compromising disorders by examining primary diseases, concomitant processes, functional status, and psychosocial factors. Using the screening instrument, 4 study participants independently assessed 50 randomly selected pain service patient records. Instrument reliability was measured by calculating interrater agreement (Kappa coefficient) and internal consistency (Cronbach alpha). Content and convergent validity of the PANDA screen was assessed by inclusion of and comparison to other patient assessment tools.
Results: The records of 50 patients, who had received consultation from the Acute Pain Service, were reviewed. Kappa statistic for observer agreement was 0.74. Internal reliability was highest for the primary disease and lowest for the psychosocial components. Content validity was based on the incorporation of well-established screening tools (2, 3). Pearson correlation coefficient for concurrently determined PANDA and ASA Physical Status scores was 0.8.
Discussion: A new palliative care screening tool was shown to be reliable and valid. Implementation of this instrument may lead to earlier detection of children in need of a multidisciplinary approach to their symptoms and increase awareness and acceptability of palliative care by primary practitioners.
References: 1) AAP, Pediatrics, 2000 2) Schag . J Clin Oncology, 1984 3) Lansky, Cancer, 1987

Figure 1 PANDA Screening Instrument

Primary Disease Process	**2 Points**		**#**
Cancer – (Prognosis - Tumor Specific)	Metastatic, Recurrent,		
Metabolic or Immunologic (including AIDS)	Multi-System Failure		
Pulmonary	Ventilator Dependent		
Cardiac	I.V. Inotrope Dependent		
Renal or Hepatic	Failed or Ineligible for Tx		
Neuromuscular	Ventilator Dependent		
Neurological	Encephalopathic		
Concomitant Processes	**Point Value**		**#**
Refractory Symptoms - Pain, Nausea, Vomiting, Dyspnea, Fatigue	**2**		
Altered Mental Status - Marked	**2**		
O^2 Requirement > 60%	**1**		
Congestive Heart Failure	**1**		
Renal or Hepatic Compromise - Moderate to Severe	**1**		
IDDM	**1**		
Infection - Systemic, Fungal, Resistant	**1**		
Malnutrition - Severe	**1**		
Functional Status	**Points as directed**		**#**
Lansky Play Scale (<16 years old)	**% Activity**	**0- 3**	
Karnofsky Functional Scale (>16 years old)	**% Activity**	**0- 3**	
Other Considerations	**1 Point Each**	**#**	
Complex decision-making and determination of goals of care			
Unacceptable level of pain or symptom distress > 24 hrs			
Distressing psychosocial or spiritual issues			
Frequent admissions (> 1/month with same complaint)			
Prolonged ICU stay without evidence of progress			