Practices, Attitudes and Beliefs of Palliative Care Physicians Towards the Use of Long-Acting Opioids in Children with Advanced Cancer

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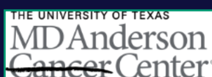

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BACKGROUND

- Children with cancer represent approximately 20% of all pediatric palliative care patients and pain is the most common source of physical suffering in children with advanced cancer.
- Palliative care physicians often assist with pain management in children with cancer, yet their practices, attitudes and beliefs of towards long-acting opioids are not well documented.

METHODS

- An electronic survey was sent to all members of The American Academy of Pediatrics (AAP) Section of Hospice and Palliative Medicine (SOHPM) and those who self-identified as physicians who provide palliative care to children on the AAP SOHPM LISTSERV®.
- Reminder emails were sent after four, six and ten weeks to all eligible physicians who had not yet completed the survey. The survey closed twelve weeks after the initial email.

RESULTS

Table 1. Physician characteristics

Variable	Result
Age, n (%)	
31-40 years	46 (40)
41-50 years	31 (27)
51-60 years	26 (22)
61 years or older	13 (12)
Female, n (%)	82 (71)
Primary board certification, n (%)	
Pediatrics	105 (91)
Internal medicine	4 (3)
Internal medicine/Pediatrics	4 (3)
Secondary board certification, n (%)	
Pediatric Hematology-Oncology	20 (19)
Pediatric Critical Care Medicine	9 (9)
Neonatal-Perinatal Medicine	7 (7)
Training in pediatric hospice and palliative medicine, n (%)	
Hospice and palliative medicine fellowship	28 (36)
"Grandfathered"	49 (64)
Years practicing in pediatrics, n (%)	
0-5 years	11 (10)
6-15 years	51 (49)
16 years of more	43 (41)
Years practicing in pediatric hospice and palliative medicine, n (%)	
0-5 years	47 (40)
6-15 years	61 (52)
16 years of more	8 (7)
Primary practice location, n (%)	
Free standing children's hospital	61 (53)
Children's hospital within a general hospital	43 (37)
Hospice	7 (6)
Other	5 (4)

- 116/188 (62%) physicians responded to the survey.
- 77/116 (66%) are board certified in Pediatrics and Hospice and Palliative Medicine.
- 63% of physicians not board certified in pediatrics reported titrating oxycodone ER and morphine ER as "easy" or "extremely easy" compared to 46% ($p = 0.05$) for oxycodone ER and 51% for morphine ER ($p = 0.07$) among board certified pediatric physicians.
- 53% of board certified pediatric physicians "agreed" or "strongly agreed" that the main reason for starting methadone is because existing formulations of other long-acting opioids are unsuitable for children compared to 36% of physicians not board certified in pediatrics ($p = 0.05$).
- A majority of physicians (91% [±19%]) start an empiric bowel regimen when prescribing long-acting opioids.
- A majority of physicians (71% [55/78]) define a prolonged QTc as ≥ 450 milliseconds (ms).
- Baseline ECG obtained in 63% (±33%) of kids when starting methadone and repeated a mean 3 weeks (± 1.6 weeks) later.
  - Most common reason why physicians did not obtain a baseline ECG was that the child was on home hospice or at the end-of-life.
- The most common reasons for repeating an ECG were:
  - Medications that prolong the QTc are added (86%)
  - Initial ECG has a prolonged QTc (71%)
  - Methadone dose increased (58%)
- Physicians reported decreasing the dose of methadone by a mean of 38% (± 19%) when changing from PO to IV.

Table 2. Attitudes and beliefs of physicians about characteristics of long-acting opioids

	Comfort Level	Cost Prevents Prescribing	Ease of Administration	Family Resistance
	"Comfortable"/ "Extremely Comfortable"	"Frequently"/ "Extremely Frequently"	"Easy"/ "Extremely Easy"	"High"/ "Extremely High"
Fentanyl TDP	85%	21%	83%	6%
Hydromorphone ER	37%	31%	29%	4%
Methadone	84%	3%	77%	51%
Morphine ER	94%	5%	44%	24%
Oxycodone ER	84%	29%	41%	21%

CONCLUSIONS

- Most palliative care physicians report comfort in using long-acting opioids in children, with the exception of hydromorphone ER.
- For methadone, cost as a barrier to use was lowest but physician perspective of family resistance was highest.
- As compared to pediatric trained physicians, adult trained physicians perceived titration of oxycodone ER and morphine ER to be easier but less likely to agree that the main reason for starting methadone is because existing formulations of other long-acting opioids are unsuitable for kids.

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