

Morphine Induced Respiratory Success

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Case Details

- Term infant, appearance consistent with thanatophoric dysplasia
- Transferred from an outside hospital to the Children's Memorial Hermann NICU after requiring intubation on day of life #7
- Intubated, on ventilator, being fed by oral-gastric tube
- Family only speaks Spanish

Thanatophoric Dysplasia



Picture taken from <http://anakinssong.com>

Which aspect of this case would you find the most challenging if you were the consultant?

- 1) **Feeding**—should feeds be started, is it okay to stop them, should we place a g-tube?
- 2) **Respiratory support**—is it right to intubate, should we use CPAP, would we perform a tracheostomy if requested?
- 3) **Communication**—is there an interpreter available, are the nuisances of my words being properly translated?
- 4) **Location**—will the NICU welcome my involvement, is there a proper place to provide end-of-life care if needed?

Case Details—continued

- Genetic consultants confirm diagnosis
- Family agrees that CPR will not provide benefit for their daughter (lungs are the issue, not a cardiac arrhythmia)
- Family wants to know what we will do if she is unable to sustain herself after being extubated

What maximum level of medical intervention would you offer to the family if she fails extubation?

- 1) Comfort measures only
- 2) High flow nasal cannula or CPAP
- 3) Reintubation and reevaluation, but no tracheostomy
- 4) Reintubation, tracheostomy if needed

Agreed Upon Plan (Taken from chart)

- No reintubation, no chest compressions, no chemical/electrical cardioversion
- We will attempt to wean the CPAP every day by 1, with the goal of getting her to a nasal cannula flow of 3 liters which we believe we can replicate at home with the support of home hospice.
- Any signs of respiratory distress will be treated with a return to the prior level of CPAP (if after a wean) but this will be the limit of any increase in her respiratory support.
- Further respiratory distress that does not respond to a reversal of a prior CPAP wean will be treated with morphine prn. It is ordered for 0.05mg/kg q 30min prn respiratory distress at the end-of-life.
- A failure to wean for 3 days will be considered a declaration that her lungs are too small to go home with a level of support we can replicate at home and end-of-life care will provided in the hospital
- Should the child begin to have respiratory failure, we will relocate the patient and family to Marnie's garden for more privacy.

How long did this plan actually stay in place after extubation?

- 1) 2 hours
- 2) 2 days
- 3) 2 weeks
- 4) 2 months
- 5) 2 years

Case Details—continued

- After 2 weeks of attempting to wean, the family felt it was right to remove her from CPAP and treat respiratory distress with morphine instead of CPAP
- Relocated to private room
- Lots of family present, stayed overnight
- Child life provided music therapy
- ~8 doses of morphine required to keep her comfortable

When did the patient die?

- 1) Right after removal of CPAP in her mother's arms
- 2) In the middle of the night while the family was asleep in the private room
- 3) 2 days later in the NICU, just as we were readying for discharge
- 4) 3 months after discharge while under the care of hospice