Compassionate Extubation and the Last Hours

Sonya K. Christianson, MD

Palliative Medicine

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If you have questions for Dr. Christianson regarding today's presentation, submit them to:

GrandRoundsQuestions@scrippshealth.org

As always, nothing to disclose.

Palliative Medicine

Our Mission:

To relieve suffering,
at every stage of life.

Topics

- Life and Death Conversations
- The Extubation
- Comfort in the Last Hours

Patient: John Smith

- 78 year-old male presents in the ED after a unwitnessed fall.
- Cerebellar hemorrhagic stroke 2 months ago, stabilized, spent 2 weeks in rehab, living in assisted living for the past week.
- PVD, Valv Disease, Pacemaker, HTN, DM2

Patient: John Smith

- Intermittently responsive, signs of respiratory distress.
- Head CT shows a large left parietal intracranial hemorrhage with a midline shift.
- The 2 daughters are waiting to speak to you. (scene one)

Thoughts?

- Prophylactic Conversations
- The D word
- Being a surrogate
- Functional descriptions
- Code survival, intubation survival

CPR Survival Data

- Overall Survival to Hospital Discharge (via NRCPR Registry)
  - 44% of arrest victims have return of spontaneous circulation
  - 17% survive to hospital discharge (86% of these without neurologic injury)
- Cancer (Meta analysis)
  - Localized Ca: 9%
  - Metastatic Dz 7%

CPR Survival Data

- Hemodialysis (retrospective study 137 HD pts s/p CPR)
  - 14% (3% of code survivors alive at 6 months)
- ICU (Albert Einstein retrospective data)
  - 15%, 3% independent in ADLs after discharge
- Elderly:
  - 10% survival out of hospital code
  - <5% for chronically ill elderly.

Sometimes the most compassionate extubation is no intubation in the first place.

Patient: John Smith

John was intubated and transferred to the ICU. He has remained unresponsive for 2 weeks and has failed several weaning trials.

You are considering a compassionate extubation.

Compassionate Extubation

- Ventilator withdrawal in a patient who is expected to die.
- Similar situations:
  - Removing BiPAP
  - Stopping Dialysis
  - Turning off LVAD
  - Others? Future therapies?

Who is suffering? How?

- The Patient
- The Family
- The Nurses
- The Physicians
- Others?

Patient: John Smith

- Scene 2

Compassionate Extubation

- A ***sacred*** moment that the family will remember for the rest of their lives
- Treating the patient AND family
- Adequate preparation ensures smooth and peaceful experience

Preparation

- The Family
- The Medical Team
- Medications
- Environment
- Social/Spiritual Support

Compassionate Extubation

1. Premedication (Benzo, Opiate, Glyco)
2. Examination, Environment
3. ET tube removal, Suctioning
   - Towels
   - Positioning
   - Communication with RN, RT
   - Extubation vs. Terminal weaning

Withdrawal of other interventions

- Vasopressors, Inotropes
- Artificial Nutrition and Hydration
- AICD
- Antibiotics

Dyspnea

- Like pain, dyspnea is perceived and verified only by the person experiencing it.
- How do you assess?
- Opiates: start low, use boluses to titrate
- What about O2 sats? Oxygen?
- Associated anxiety - benzodiazepines

Pain

- Assessment?
- Incident vs. rest pain
- Pain vs. delirium
- Opiates: Use boluses to titrate
- Urine output drops…

Chest Secretions

Precise mechanisms unclear!

→Inability to swallow or cough cause secretions to accumulate

→ Secretions cause partial airway obstruction

→In reaction to the obstruction, more secretions are produced

Should you treat chest secretions?

- Unlikely to be distressing to the pt given their unconscious state
- Prognosis 16 – 60 hours
- Can be perceived by family to be very distressing, but not always.
- Is it ok to intervene in order to treat the *family?*

What non-pharmacological things can you do?

- Positioning
- Suctioning – be gentle!
- Consider decreasing/stopping fluids

What medications can help?

- Evidence? Not a lot.
- Anticholinergics are most commonly used.
  - Reduce saliva secretion
  - Dilate bronchial smooth muscle
  - Early intervention is key

Anticholinergics

- Glycopyrrolate (preferred): PO/SL/SC/IV
  - 0.4 – 1.2mg q 1 - 4 hrs
  - Time to effect: 30 - 60 min
- Scopolamine 1.5 mg TD patch
  - 1-3 patches q 72 hours
  - Time to effect: 8 hours
- Atropine: SL/SC/IV
  - 0.4 – 0.6 mg q 2 - 4 hrs
  - 1% opth soln: 1-2 drops q 4 hrs
- Hyoscyamine: SL/SC/IV
  - 0.125 - 0.25 mg q 2 - 4 hours

Delirium

- Hypoactive vs. Hyperactive
- Irreversible vs. Reversible
  - "terminal delirium"
- Benzos :
  - Ativan: Onset 5-20 min, ½ life 10-20 hrs
  - Midazolam: Onset 2-5 min, ½ life 1-4 hours
- Benzo tolerance?
- Antipsychotics: haloperidol, chlorpromazine

“Comfort Care”

- Wide range of definitions
- Medications are dosed differently based on prognosis
- Route of admin – least invasive (buccal/mucosal/oral, TD, SQ, IV, IM, rectal)

Last Hours: Fatigue/Weakness

- Dec ability to move, lift head
- Joint position fatigue
- Pressure ulcers: cutaneous ischemia
- Turning, movement, massage

Last Hours: Appetite, fluids

- Fear of “starvation”
- Help family find alternative ways to care
- Parenteral fluid may be harmful
- Mucosa, conjunctiva care

Last Hours: Cardiac, Renal

- Tachycardia, BP instability
- Peripheral cooling, cyanosis
- Skin mottling, venous pooling
- Diminished urine output

Last Hours: Neuro

- Decreased level of consciousness
- Terminal delirium
- Changes in respiration
- Loss of ability to swallow, sphincter control

Last Hours: Eyes

- Loss of ability to close eyes
  - Loss of retro-orbital fat pad
  - Insufficient eyelid length
  - Conjunctival exposure: increased dryness, pain, maintain moisture

Last Hours: Communication

- Awareness > ability to respond, assume patient hears everything
- Create a familiar environment
- Include in conversations (assure of presence, safety)
- Give permission to die
- Touch

Signs that death has occurred

- Absence of heartbeat, respirations
- Pupils fixed
- Color turns to a waxen pallor as blood settles
- Body temperature drops
- Muscles, sphincters relax: stool, urine
- Eyes may remain open, jaw may fall open
- Body fluids may trickle internally

When Death Occurs

- Pronouncing Death
- Notifying family
- Traditions, rites, rituals
- Remove equipment, prepare body
- Traditions, rites, rituals
- Death Certificate

Summary: The Relief of Suffering

- Start conversations about death early and review them frequently
- Adequate preparation and communication ensures a smooth and peaceful extubation
- This is a sacred time that the family will remember for the rest of their life

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Only the development of compassion and understanding for others can bring us the tranquility and happiness we all seek.