End of Life, Brain Death and Organ Donation

Family meetings, surrogates, code status, comfort-focused withdrawal, 2023 brain death criteria and donation

FAMILY MEETINGS AND GOALS OF CARE

Meet early and often. Huddle first: prognosis, recommendation; private room, interpreter, bedside nurse.

Lautrette 2007: a VALUE conference plus a bereavement brochure cut family PTSD symptoms at 90 days (45% vs 69%).

VALUE	IN THE MEETING
V	Value what the family says
A	Acknowledge emotions; allow silence
L	Listen more than you talk
U	Understand the patient as a person
E	Elicit questions

- Ask what they know; then speak plainly: dying, died
- Ask what the patient would want; recommend a plan that fits
- Uncertain prognosis: time-limited trial with agreed markers

SURROGATES, CODE STATUS, PALLIATIVE CARE

Surrogates use substituted judgment (what the patient would choose), else best interests. A named agent comes first, then the state's default order.

TERM	MEANING
DNR (DNAR)	No CPR; other treatment continues unless limited
DNI	No intubation; other treatment continues
Comfort-focused	Treat symptoms; stop what only prolongs dying
Advance directive	Patient's legal document: living will, named agent
POLST	Clinician-signed portable orders; seriously ill or frail

Palliative care triggers (Norton 2007): ICU after ≥10 hospital days, age >80 with ≥2 life-threatening comorbidities, stage IV cancer, post-arrest, ICH on a ventilator.

WITHDRAWING LIFE SUPPORT

1. Decision and comfort orders confirmed; OPO already called
2. Family prepared for breathing changes; often minutes to hours
3. Stop labs, alarms, pressors, dialysis, feeds; ICD shocks off
4. Opioid bolus before extubation; more boluses as needed

Truog 2008. Opioids for dyspnea and pain, benzodiazepines for anxiety; no ceiling; bolus with every rate increase.

DRUG	TYPICAL ADULT IV DOSE	INFUSION
Morphine	2–10 mg	0.05–0.5 mg/kg/h
Fentanyl	0.5–2 mcg/kg	0.5–10 mcg/kg/h
Midazolam	0.02–0.1 mg/kg	1–5 mg/h
Lorazepam	1–3 mg	0.5–4 mg/h

SAFETY Never start a paralytic at withdrawal: it relieves nothing and hides distress. If one is running, let it wear off (train-of-four) unless the wait is unreasonable (Truog 2008).

EXTUBATION, TERMINAL WEAN, DOUBLE EFFECT

ARREVE 2017: family PTSD at 3 months and time to death equal; decide with team and family.

APPROACH	FOR	AGAINST
Terminal extubation	No tube; less nursing-assistant strain	More airway obstruction and gasping
Terminal wean	Time to titrate drugs to dyspnea	Tube stays; may prolong dying

Double effect: dosing to relieve suffering is ethical even if death comes sooner, because that is foreseen, not intended; chart symptom, dose, response. Titrated doses did not shorten dying (Chan 2004).

THE NURSE'S ROLE

- Ask who speaks for the patient; find any directive or POLST
- At meetings: restate, check understanding, voice patient values
- Lead comfort care: assess, bolus, reassess; privacy, rituals, presence
- Never pre-judge which families to ask about donation (CMS)
- Moral distress: speak up, call ethics; objectors hand off, never abandon

BRAIN DEATH (2023 AAN/AAP/CNS/SCCM)

Adults: one exam; children: two, 12 h apart. EEG and CTA do not count. Death time: final apnea-test ABG.

STEP	ADULT CRITERIA
Prerequisites	Known irreversible cause; ≥24 h after anoxic injury
Temp, BP	Core ≥36 °C; SBP ≥100 and MAP ≥75 (MAP alone on VA-ECMO)
Confounders	≥5 drug half-lives; train-of-four 4/4; no severe metabolic upset
Exam	Coma; no pupil, corneal, oculocephalic, caloric, gag, cough reflex
Apnea test	100% O_2 ≥10 min; start $PaCO_2$ 35–45; no ventilator breaths
Positive	No breaths; $PaCO_2$ ≥60 and ≥20 above baseline; pH <7.30
Abort	SBP <100 or MAP <75; progressive SpO_2 fall below 85%; unstable rhythm
Ancillary	If exam or apnea test incomplete: angiography, radionuclide flow, TCD

EXAM TIP Brain death is legal death; spinal reflexes can persist. Testing needs no consent unless state law requires it; inform the family.

ORGAN DONATION

CMS: refer every death and imminent death to the OPO, ideally within 1 hour and before withdrawal. Triggers (agreed with the OPO): ventilated brain injury with GCS often ≤5, brain death testing, plan to withdraw.

Gries 2013: transplant staff take no part in withdrawal or declaring death. CMS: only the OPO or a trained requester asks the family.

FEATURE	BRAIN DEATH (DBD)	CIRCULATORY DEATH (DCD)
Patient	Dead by neurologic criteria	Not brain dead; withdrawal already chosen
Death declared	Care team's brain death exam	Own team, ≥2 min pulseless; OPTN: recovery ≥5 min
If no death	—	Comfort care continues

- Donor goals (UNOS): MAP 60–110, P/F ≥300, Na ≤155, glucose ≤180, urine ≥0.5 mL/kg/h
- DI is common: desmopressin or vasopressin
- Lungs (Canada 2020): 6–8 mL/kg, PEEP ≥8, recruit after disconnection

Sources (25) are listed with links at icubasics.com/sheets/end-of-life.html. For education and exam preparation only. Not medical advice; follow current guidelines and your institution's protocols. ICU Basics is an independent study aid not affiliated with any certifying body.