RABIES
(CONFIRMED OR CLINICAL DISEASE)

The Prehospital Care Library
La Bibliothèque de Soins Préhospitaliers

Rabies is an acute, progressive viral encephalitis caused by rabies lyssavirus.
Once clinical disease manifests, rabies is almost universally fatal, regardless of supportive intensity.

ED and ICU priorities shift from cure to:

- Accurate diagnosis and prognostication
- Prevention of secondary harm
- Symptom control and humane care
- Infection control
- Family communication and ethical decision making

Rabies has no effective treatment once symptomatic.

WHEN THIS DOCUMENT APPLIES

This applies to patients with:

- **Confirmed rabies infection,** OR
- **Probable rabies** with compatible symptoms and exposure history

It does not apply to:

- Asymptomatic exposure
- Post exposure prophylaxis decisions

⚠ Once neurological symptoms develop, vaccination and immunoglobulin are ineffective.

CLINICAL RECOGNITION (SYMPTOMATIC RABIES)

PRODOMAL PHASE
(EARLY, NON SPECIFIC)

- Fever
- Malaise
- Paraesthesia or pain at bite site
- Anxiety, agitation

Often missed.

NEUROLOGICAL PHASE (DIAGNOSTIC)
Two overlapping patterns:

Encephalitic rabies

- Agitation, terror, aggression
- Hydrophobia
- Aerophobia
- Hypersalivation
- Autonomic instability

Paralytic rabies

- Flaccid weakness
- Ascending paralysis
- Fewer behavioural symptoms
- Often misdiagnosed as GBS

Both progress to:

- Reduced consciousness
- Respiratory failure
- Cardiac instability
- Death

PATHOPHYSIOLOGY

- Virus travels via peripheral nerves → CNS
- Minimal viraemia → immune system cannot clear infection
- Once CNS is involved:
  - Widespread neuronal dysfunction
  - Autonomic system failure
  - Brainstem involvement → respiratory and cardiac collapse

Antivirals, immunoglobulin, vaccines, and steroids **do not reverse established CNS infection.**

DIAGNOSIS (DO NOT DELAY CARE)

Diagnosis is often **clinical**, supported by:

- History of animal exposure
- Compatible neurological syndrome

Laboratory confirmation (where available):

- PCR (saliva, CSF, skin biopsy)
- Serology

Do not delay symptom control or decision making waiting for confirmation.

IMMEDIATE ED / ICU ACTIONS

1. **Recognise futility of curative treatment**
2. Protect staff and family from exposure
3. Control distressing symptoms
4. Establish goals of care early

This is **not** a "do everything" disease, uncontrolled interventions cause suffering without benefit.

AIRWAY & RESPIRATORY CARE

- High risk of:
  - Laryngospasm • Aspiration • Respiratory failure

Intubation is not mandatory unless:

- Patient distress cannot be controlled
- Airway compromise is immediate
- It aligns with agreed goals of care

If intubated:

- Expect poor outcome
- Prolonged ventilation does **not** alter survival
- Clear communication essential

SYMPTOM CONTROL (PRIMARY TREATMENT)

AGITATION & SPASMS

- Benzodiazepines (core therapy)
- Antipsychotics for severe behavioural disturbance
- Deep sedation may be required

Goal: comfort, not neurological preservation.

AUTONOMIC INSTABILITY

- Labile BP and heart rate
- Hyperthermia
- Excess salivation and secretions

Management:

- Sedation
- Supportive measures
- Avoid aggressive haemodynamic targets

PAIN & DISTRESS

- Treat aggressively
- Opiates appropriate
- Avoid under treatment due to fear of respiratory depression

At this stage, **comfort overrides physiology.**

WHAT NOT TO DO (IMPORTANT)

- Rabies vaccine (ineffective once symptomatic)
- Rabies immunoglobulin
- “Milwaukee protocol” (no proven survival benefit)
- Escalating life support without goals of care discussion
- Prolonged invasive ICU care presented as curative

INFECTION CONTROL

- Standard precautions are usually sufficient
- Avoid saliva exposure:
  - Gloves for airway care
  - Eye protection if secretions present
- No airborne isolation required

Human to human transmission is extremely rare and requires direct neural tissue or saliva exposure.

COMMUNICATION & ETHICS

This is a family critical diagnosis.

Required steps:

- Early, honest prognosis discussion
- Document incurability clearly
- Involve senior clinician immediately
- Palliative care involvement early if available

This is not “giving up” — it is appropriate care.

DISPOSITION

- Supportive care in ICU or monitored setting
- Early transition to palliative focused management
- Withdrawal of invasive support when consistent with goals and ethics

Death typically occurs within days after neurological symptom onset.

CHECKLIST

CONFIRMED / SYMPTOMATIC RABIES

RECOGNITION

- [ ] Compatible neurological syndrome
- [ ] History of animal exposure
- [ ] Hydrophobia / aerophobia OR flaccid paralysis
- [ ] Rabies suspected or confirmed

IMMEDIATE ACTIONS

- [ ] Senior clinician notified
- [ ] Infection control precautions applied
- [ ] Prognosis recognised as fatal

SYMPTOM MANAGEMENT

- [ ] Benzodiazepines for spasms / agitation
- [ ] Sedation for comfort if required
- [ ] Opiates for pain/distress
- [ ] Manage secretions

AIRWAY DECISION

- [ ] Airway compromise assessed
- [ ] Intubation only if necessary and aligned with goals
- [ ] Avoid default escalation

WHAT TO AVOID

- [ ] Rabies vaccine
- [ ] Rabies immunoglobulin
- [ ] Antivirals / experimental protocols without consent
- [ ] Prolonged invasive ICU care without benefit

COMMUNICATION

- [ ] Family informed early and clearly
- [ ] Prognosis explained honestly
- [ ] Goals of care documented
- [ ] Palliative team involved if available

DISPOSITION

- [ ] ICU or monitored bed as appropriate
- [ ] Comfort focused management
- [ ] Clear documentation of diagnosis and plan