Brain Death Diagnosis

Adjudication Guideline

Rule Category:	Ref: No:	Version Control:	Effective Date:	Revision Date:
Billing	2025-BN-0031	Version No.1.1	14/02/2025	01/05/2025

Approved by:	Responsible:	Related Adjudication Guidelines:
Daman	Medical Standards & Research	N/A

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1. Abstract

1.1 For Members

The medical criteria for establishing brain death are comprehensive and vary slightly depending on the country or healthcare system and generally follow well-defined protocols. Brain death refers to the irreversible cessation of all functions of the entire brain, including the brainstem.

1.2 For Medical Professionals

As per the DOH standard of brain death, withdrawal of mechanical ventilation should be performed (artificial support) for the brain-dead person, except in the following cases:

a) Pregnant brain-dead woman, until delivery.
b) Organ donors, until organ retrieval.
c) Pursuant to court order.

2. Scope

The guideline comprehensively addresses the coverage and criteria to the diagnosis of brain death, in accordance with local regulatory authorities and the law.

3. Adjudication Policy

3.1 Eligibility / Coverage Criteria

According to international guidelines, brain death is demonstrated by the state of unresponsive coma with loss of:

- Capacity for consciousness,
- Brainstem reflexes, and
- The ability to breathe independently.

In such cases, along with absence of the preconditions, confounders and ancillary tests and examination criteria fulfilment (e.g. EEG, exclusion of precipitating factors, absent stimuli) requests for long-term care should be rejected. Neurological assessment including evaluation of Glasgow Coma Scale score should be performed as part of neurological criteria.

Below are the common criteria used to establish brain death:

Clinical Criteria (Neurological Examination):

Brain death is diagnosed based on a thorough neurological examination. The key steps include:

a. Unresponsive State:

• The patient must be in a coma and show no response to any external stimuli, including pain.
• There should be no purposeful movement or facial grimacing.

b. Absence of Cranial Nerve Reflexes (Brainstem Reflexes):

• Pupillary Light Reflex: Pupils should be fixed and unresponsive to light.
• Corneal Reflex: No blinking when the cornea is gently touched.
• Gag Reflex: Absence of gag or cough when stimulating the back of the throat.
• Oculovestibular Reflex (Cold Caloric Test): No eye movement in response to irrigation of the ear canal with cold water.
• Oculocephalic Reflex (Doll's Eye Test): No eye movement in response to passive head rotation.
• Apnoea Test: A crucial test to check for brainstem activity, the goal of this test is to allow the serum carbon dioxide to increase and the central nervous system pH to decrease to levels that would normally maximally stimulate the respiratory centres in a functioning medulla. If no respiratory effort is observed despite rising CO2 levels, this indicates the absence of brainstem function. The test should be conducted after maintaining:

- A systolic blood pressure of at least 100 mm Hg or mean arterial pressure be at least 60 mm Hg in adults.
- Temperature be at least 36 °C, with use of a warming blanket, automated temperature regulation device, thermal mattress, warmed fluids, and/or warmed oxygen as needed.
- The person be preoxygenated with 100% O2 for at least 10 minutes. Parameters, pathway and requisites of testing (Tables and pathways A & B) in appendices must be followed.

No Reflex Movements or Breathing: No spontaneous breathing or any movement that could be interpreted as purposeful, such as grimacing or decerebrate/decorticate posturing.

Confirmatory Tests (Ancillary Testing):

• Electroencephalogram (EEG): Shows no detectable electrical activity in the brain (≥2 μV) over a 30-min period.
• Cerebral Angiography: Shows no blood flow to the brain (absence of cerebral circulation).
• Transcranial Doppler Ultrasonography: Confirms absence of cerebral blood flow.
• CT or MRI: Shows massive brain edema or destruction (though these are not required if clinical criteria are met)

Exclusion of Confounding Factors:

Before diagnosing brain death, it's essential to rule out other conditions that could mimic brain death, including:

• Hypothermia (core temperature < 32°C / 90°F).
• Drug intoxication (e.g., barbiturates, sedatives).
• Paralysis (neuromuscular blocking agents).
• Severe metabolic abnormalities (e.g., hypoglycaemia, acidosis).
• Recent use of neuromuscular blocking agents.
• The doses and the duration of infusion of sedative agents
• Altered pharmacokinetics with very high doses

Documentation:

Once brain death is established, it must be thoroughly documented**,** including:

• Clinical examination with date and time.
• Results of the neurological exam, including the absence of reflexes.
• The apnoea test result.
• Confirmation of the absence of confounding factors.
• Any confirmatory test results (ancillary) along with clinical examination, if applicable including a retesting and re-evaluation of the patient for extension requests should be provided upon request in line with pathways A and B (Appendix 5).
• A team of at least two clinicians is required to make the diagnosis of brain death: a mandatory neurologist or neurosurgeon and one of the following (Anaesthesiology, Critical Care Medicine, Internal Medicine, Neonatology, Neurocritical Care Medicine, Paediatrics). Kindly note that for neonates i.e.: any member age < 28 days a neonatologist is mandatory.
• Transfer to Long term care from an acute setting requires brain death declarations and criteria fulfilled.
• Patients kept on LTC must fulfil criteria, transplant cases must be clearly documented with supporting evidence/justification of maintaining life support for periods greater than one week.

Second Opinion:

The health care facility must facilitate obtaining a second opinion at the request of the patient's family, or substitute consent giver. The second opinion may be sought from healthcare practitioners working in the same or another facility.

Workforce requirements such as the appropriate clinicians must be followed as required by the regulatory authorities. The medical team members must be trained, competent and authorised (privileged) to diagnose brain death.

3.2 Requirements for Coverage

Clinical criteria for establishing the diagnosis must be followed in accordance with details added to the adjudication rule along with the DOH standard reference DOH/HFC/ST/BDD/V1/2023.

The pathway for establishment and segregated criteria to rule out and/or rule in the diagnosis are further specified in Tables and pathways A and B and under section 5. Appendices.

To ensure continuation of coverage regulatory criteria must be met and thoroughly documented including the reporting of the appropriate ICDs i.e.: Brain death/Anoxia to be reflected in the requests.

Documentation forms including Neurological Death form declaration as mandated by regulatory authorities and any requirements requested by Daman are required to be shared to ensure continuation of coverage.

Link:
https://mohap.gov.ae/documents/20117/454960/67744cfe-1808-479e-9594-119fcf632949.pdf/2036af92-c9aa-dc0b-2143-5cf14ba596fd?t=1737614260057

For DHA:

Please follow the following links for the DHA requirements:

https://services.dha.gov.ae/sheryan/wps/portal/home/circular-details?circularRefNo=CIR-2021-00000122&isPublicCircular=1&fromHome=true

- Brain Death Determination Policy
- Brain Functions Assessment Form

3.3 Non-Coverage

Services and activities for provided not in accordance with the adjudication rule will not be covered by Daman and are subject to audit and/or recovery.

Daman expects cooperation with the providers along with strict compliance and adherence to the published regulatory guidance on the condition to ensure a streamlined approach on the billing.

Detailed justification from physicians is required if any of the required criteria such as ancillary testing are not performed.

3.4 Payment and Coding Rules

Kindly apply Regulator payment rules and regulations and relevant coding manuals for requested activities.

4. Denial Codes

Code	Code Description
MNEC-004	Service is not clinically indicated based on good clinical practice, without additional supporting diagnoses/activities
CODE-010	Activity/diagnosis inconsistent with clinician specialty
AUTH-001	Prior approval is required and was not obtained

Questionnaire form link:

https://www.damanhealth.ae/wp-content/uploads/2025/04/Brain-Death-Pre-approval-Form.pdf

5. Appendices

5.1 References

- https://www.doh.gov.ae/-/media/1134DD3DB7254BB296F41592778594EC.ashx
- Ministerial Decision No. 19 of 2022 Concerning Criteria for the Diagnosis of Death Arabic and English versions available online at:
  https://mohap.gov.ae/ar/w/translation-of-th-ministerial-decision-no-19-of-2022-concerning-the-criteria-for-the-diagnosis-of-death
  https://mohap.gov.ae/en/w/translation-of-th-ministerial-decision-no-19-of-2022-concerning-the-criteria-for-the-diagnosis-of-death

- https://www.aomrc.org.uk/wp-content/uploads/2025/01/Code_of_Practice_Diagnosis_of_Death_010125.pdf
- https://jficmi.anaesthesia.ie/wp-content/uploads/2020/09/Brain-Death-Guidelines-September-2020.pdf
- https://cgo.mod.uk/media/4f4cotct/role1-jsp950-1-aa.pdf
- https://www.neurology.org/doi/10.1212/WNL.0000000000207740
- https://www.anaesthesia.ie/wp-content/uploads/2018/01/ICSI-Guidelines-MAY10.pdf
- https://www.ficm.ac.uk/sites/ficm/files/documents/2021-10/Form_for_the_Diagnosis_of_Death_using_Neurological_Criteria-long_version.pdf
- https://pmc.ncbi.nlm.nih.gov/articles/PMC2921050
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- https://www.uptodate.com/contents/image?imageKey=NEURO/81854
- https://www.facs.org/media/mkej5u3b/tbi_guidelines.pdf

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- Brain Death Determination Policy
- Brain Functions Assessment Form

Table A- Criteria for Brain death in Adult Patients

Criteria for the Diagnosis of Brain Death in Adults	
Age Group	**Adults: age [>18 years]**
Preconditions must be met before attempting the first round of examinations and apnea test.	
Preconditions	The patient is in a coma with a specific and known cause
	The patient is on ventilatory support with no spontaneous breathing efforts
	The patient is not in shock
	All metabolic endocrine disturbances must have been rectified.
	Absence of response to any kind of stimuli
	Absence Of all brainstem reflexes
	A minimum waiting period of 6 hours must have passed since the initial brain insult or injury, before initiating the clinical examinations. This waiting period should be increased to a minimum of 24 hours in the following circumstances: - Targeted Temperature Management (7M)/ Therapeutic Hypothermia was used in the patient - Resuscitation in case the patient had suffered cardio-respiratory arrest and anoxic brain injury. - Uncertainty about the reversibility of the condition.
Confounders must be excluded before attempting the first round of examinations and apnea test.	
Confounders	Hypothermia characterized by core temperature < 36°C.
	Effect of certain medications including for example sedatives, anxiolytics, hypnotics, narcotics, muscle relaxants (neuromuscular-blocking agents), as well as drug intoxication and poisoning.
	Systolic blood pressure < 60 mm Hg (despite vasopressors) for adults.
	Significant metabolic, endocrine, electrolyte or acid base disturbances
	Cervical spinal cord injuries
Clinical Assessment	

1st set of Examinations	Verify coma: • Demonstrate absence of brain activity as evidenced by seizures, decerebrate or decorticate posturing. • Demonstrate absence of any grimacing or facial movement, or any limb movements in response to deep pressure (noxious stimuli) applied to temporomandibular joints and the supraorbital notches.
	Demonstrate absence of brainstem reflexes: • Pupillary response to bright light • Corneal • Oculocephalic (contraindicated when cervical spine unstable) • Oculovestibular (tympanic membranes must be intact): Irrigate with ice-cold water, 50 ml in adults and 20 ml in children • Gag • Cough
Observation period between the two rounds:	Minimum of 30 minutes.
Confounders must be met before attempting the second round of examinations and apnea test.	
Preconditions	The patient is in a coma with a specific and known cause
	The patient is on ventilatory support with no spontaneous breathing efforts
	The patient is not in shock
	All metabolic or endocrine disturbances must have been rectified.
	Absence of response to any kind of stimuli
	Absence of all brainstem reflexes
	A minimum waiting period of 6 hours must have passed since the initial brain insult or injury, before initiating the clinical examinations. This waiting period should be increased to a minimum of 24 hours in the following circumstances: • Targeted Temperature Management (TTM)/ Therapeutic Hypothermia was used in the patient. • Resuscitation in case the patient had suffered cardio-respiratory arrest and anoxic brain injury. • Uncertainty about the irreversibility of the condition.
Confounders must be excluded before attempting the second round of examinations and apnea test	

Confounders	Hypothermia characterized by core temperature < 36°C.
	Effect of certain medications including for example sedatives, anxiolytics, hypnotics, narcotics, muscle relaxants (neuromuscular-blocking agents), as well as drug intoxication and poisoning.
	Systolic blood pressure < 60 mm Hg (despite vasopressors) for adults.
	Significant metabolic, endocrine, electrolyte or acid base disturbances
	Cervical spinal cord injuries
2nd set of Examination	Verify coma: Demonstrate absence of brain activity as evidenced by seizures, decerebrate or decorticate posturing. Demonstrate absence of any grimacing or facial movement, or any limb movements in response to deep pressure (noxious stimuli) applied to temporomandibular joints and the supraorbital notches. Demonstrate absence of brainstem reflexes: • Pupillary response to bright light • Corneal • Oculocephalic (contraindicated when cervical spine unstable) • Oculovestibular (tympanic membranes must be intact): Irrigate with ice-cold water, 50 ml in adults and 20 ml in children • Gag • Cough
Apnea test	Apnea test This test should be performed on a hemodynamically stable patient, if not clinically contraindicated, after successfully and conclusively completing the clinical examinations and in the absence of brainstem reflexes
Ancillary Tests if clinically indicated	
Tests that confirm the absence of electrical activity in the brain EEG	
Tests that confirm the absence of brain perfusion 1) Digital Subtraction Angiography (DSA) (4-vessels) 2) SPECT (Radionuclide study using brain specific tracers e.g., Tc-99 HMPAO) 3) CT Angiogram (CTA) with or without CT perfusion in adult cases provided specific requirements are met: • CTA with or without Perfusion studies can be used if DSA or Radionuclide studies not available. • CTA requires standard technique for quality of study (i.e., optimal bolus and dose of contrast) • CTA requires standard interpretation i.e., 4-points scoring system.	

Note: Pure vascular studies are unreliable in decompressed cases e.g., Post Craniectomy.

Table B-Criteria for Brain death in Paediatric Patients

Criteria for the Diagnosis of Brain Death in Paediatric Patients			
Age Group	Neonates / Infants: age [37 weeks gestation – 60 days]	Infants/ Children: age [> 60 days – 1 year]	Children: age [> 1-year – 18 years]
Preconditions must be met before attempting the first round of examinations and apnea test			
Preconditions	The patient is in a coma with a specific and known cause	The patient is in a coma with a specific and known cause	The patient is in a coma with a specific and known cause

	The patient is on ventilatory support with no spontaneous breathing efforts	The patient is on ventilatory support with no spontaneous breathing efforts	The patient is on ventilatory support with no spontaneous breathing efforts
	The patient is not in shock	The patient is not in shock	The patient is not in shock
	All metabolic or endocrine disturbances must have been rectified	All metabolic or endocrine disturbances must have been rectified	All metabolic or endocrine disturbances must have been rectified
	Absence of response to any kind of stimuli	Absence of response to any kind of stimuli	Absence of response to any kind of stimuli
	Absence of all brainstem reflexes	Absence of all brainstem reflexes	Absence of all brainstem reflexes
	A minimum waiting period of 6 hours must have passed since the initial brain insult or injury, before initiating the clinical examinations. This waiting period should be increased to a minimum of 24 hours in the following circumstances: • Term newborn (37 weeks gestation-30 days) • Targeted Temperature Management (TTM)/ Therapeutic Hypothermia was used in the patient. • Resuscitation in case the patient had suffered cardio-respiratory arrest and anoxic brain injury. • Uncertainty about	A minimum waiting period of 6 hours must have passed since the initial brain insult or injury, before initiating the clinical examinations. This waiting period should be increased to a minimum of 24 hours in the following circumstances: • Targeted Temperature Management (TTM)/ Therapeutic Hypothermia was used in the patient. • Resuscitation in case the patient had suffered cardio-respiratory arrest and anoxic brain injury. • Uncertainty about the reversibility of the condition.	A minimum waiting period of 6 hours must have passed since the initial brain insult or injury, before initiating the clinical examinations. This waiting period should be increased to a minimum of 24 hours in the following circumstances: • Targeted Temperature Management (TTM)/ Therapeutic Hypothermia was used in the patient. • Resuscitation in case the patient had suffered cardio-respiratory arrest and anoxic brain injury. • Uncertainty about the irreversibility of the condition

	the reversibility of the condition.		
Confounders must be excluded before attempting the second round of examinations and apnea test			
Confounders	Hypothermia characterized by core temperature < 36°C	Hypothermia characterized by core temperature < 36°C.	Hypothermia characterized by core temperature < 36°C.
	Effect of certain medications including for example sedatives, anxiolytics, hypnotics, narcotics, muscle relaxants (neuromuscular-blocking agents), as well as drug intoxication and poisoning.	Effect of certain medications including for example sedatives, anxiolytics, hypnotics, narcotics, muscle relaxants (neuromuscular-blocking agents), as well as drug intoxication and poisoning.	Effect of certain medications including for example sedatives, anxiolytics, hypnotics, narcotics, muscle relaxants (neuromuscular-blocking agents), as well as drug intoxication and poisoning.
	Systolic blood pressure or mean arterial pressure below age-appropriate levels for paediatric age groups.	Systolic blood pressure or mean arterial pressure below age-appropriate levels for paediatric age groups.	Systolic blood pressure or mean arterial pressure below age-appropriate levels for paediatric age groups.
	Significant metabolic, endocrine,	Significant metabolic, endocrine, electrolyte or acid base disturbances	Significant metabolic, endocrine,

	electrolyte or acid base disturbances		electrolyte or acid base disturbances
	Cervical spinal cord injuries	Cervical spinal cord injuries	Cervical spinal cord injuries
Clinical Assessment			
1st Set of Examination	Verify coma: • Demonstrate absence of brain activity as evidenced by seizures, decerebrate or decorticate posturing. • Demonstrate absence of any grimacing or facial movement, or any limb movements in response to deep pressure (noxious stimuli) applied to temporomandibular joints and the supraorbital notches	Verify coma: • Demonstrate absence of brain activity as evidenced by seizures, decerebrate or decorticate posturing. • Demonstrate absence of any grimacing or facial movement, or any limb movements in response to deep pressure (noxious stimuli) applied to temporomandibular joints and the supraorbital notches.	Verify coma: • Demonstrate absence of brain activity as evidenced by seizures, decerebrate or decorticate posturing. • Demonstrate absence of any grimacing or facial movement, or any limb movements in response to deep pressure (noxious stimuli) applied to temporomandibular joints and the supraorbital notches.
	Demonstrate absence of brainstem reflexes: • Pupillary response to bright light • Corneal • Oculocephalic (contraindicated when cervical spine unstable) • Oculovestibular (tympanic membranes must be intact): Irrigate with ice-cold water, • 50 ml in adults and 20 ml in children • Gag • Cough • Sucking reflex • Rooting reflex	Demonstrate absence of brainstem reflexes: • Pupillary response to bright light • Corneal • Oculocephalic (contraindicated when cervical spine unstable) • Oculovestibular (tympanic membranes must be intact): Irrigate with ice-cold water, • 50 ml in adults and 20 ml in children • Gag • Cough	Demonstrate absence of brainstem reflexes: • Pupillary response to bright light • Corneal • Oculocephalic (contraindicated when cervical spine unstable) • Oculovestibular (tympanic membranes must be intact): Irrigate with ice-cold water, 50 ml in • adults and 20 ml in children • Gag • Cough

Apnea Test	1st Apnea test This test should be performed on a hemodynamically stable patient, if not clinically contraindicated, after successfully and conclusively completing the clinical examinations and in the absence of brainstem reflexes	1st Apnea test This test should be performed on a hemodynamically stable patient, if not clinically contraindicated, after successfully and conclusively completing the clinical examinations and in the absence of brainstem reflexes	1st Apnea test This test should be performed on a hemodynamically stable patient, if not clinically contraindicated, after successfully and conclusively completing the clinical examinations and in the absence of brainstem reflexes
Mandatory ancillary test (unless clinically contraindicated)	1)EEG, or 2) Tests that confirm the absence of brain perfusion: • Digital Subtraction Angiography (DSA) (4-vessels) • SPECT (Radionuclide study using brain specific tracers) Note: In cases of decompressive craniectomy, any vascular-based ancillary test is not reliable.	1) EEG, or 2) Tests that confirm the absence of brain perfusion: • Digital Subtraction Angiography (DSA) (4-vessels) • SPECT (Radionuclide study using brain specific tracers) Note: In cases of decompressive craniectomy, any vascular-based ancillary test is not reliable.	None
Observation period between the two rounds	Minimum of 48 hours	Minimum of 24 hours	Minimum of 12 hours
Preconditions must be met before attempting the second round of examinations and apnea test			

Preconditions	The patient is on ventilatory support with no spontaneous breathing efforts	The patient is on ventilatory support with no spontaneous breathing efforts	The patient is on ventilatory support with no spontaneous breathing efforts
	The patient is not in shock	The patient is not in shock	The patient is not in shock
	All metabolic or endocrine disturbances must have been rectified	All metabolic or endocrine disturbances must have been rectified	All metabolic or endocrine disturbances must have been rectified
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	Absence of all brainstem reflexes	Absence of all brainstem reflexes	Absence of all brainstem reflexes
	A minimum waiting period of 6 hours must have passed since the initial brain insult or injury, before initiating the clinical examinations. This waiting period should be increased to a minimum of 24 hours in the following circumstances: • Term newborn (37 weeks gestation-30 days) • Targeted Temperature Management (TTM)/ Therapeutic Hypothermia was used in the patient. • Resuscitation in case the patient had suffered cardio-respiratory arrest and anoxic brain	A minimum waiting period of 6 hours must have passed since the initial brain insult or injury, before initiating the clinical examinations. This waiting period should be increased to a minimum of 24 hours in the following circumstances: • Targeted Temperature Management (TTM)/ Therapeutic Hypothermia was used in the patient. • Resuscitation in case the patient had suffered cardio-respiratory arrest and anoxic brain injury. • Uncertainty about the irreversibility of the condition	A minimum waiting period of 6 hours must have passed since the initial brain insult or injury, before initiating the clinical examinations. This waiting period should be increased to a minimum of 24 hours in the following circumstances: • Targeted Temperature Management (TTM)/ Therapeutic Hypothermia was used in the patient. • Resuscitation in case the patient had suffered cardio-respiratory arrest and anoxic brain injury. • Uncertainty about

	injury. o Uncertainty about the irreversibility of the condition.		the irreversibility of the condition.
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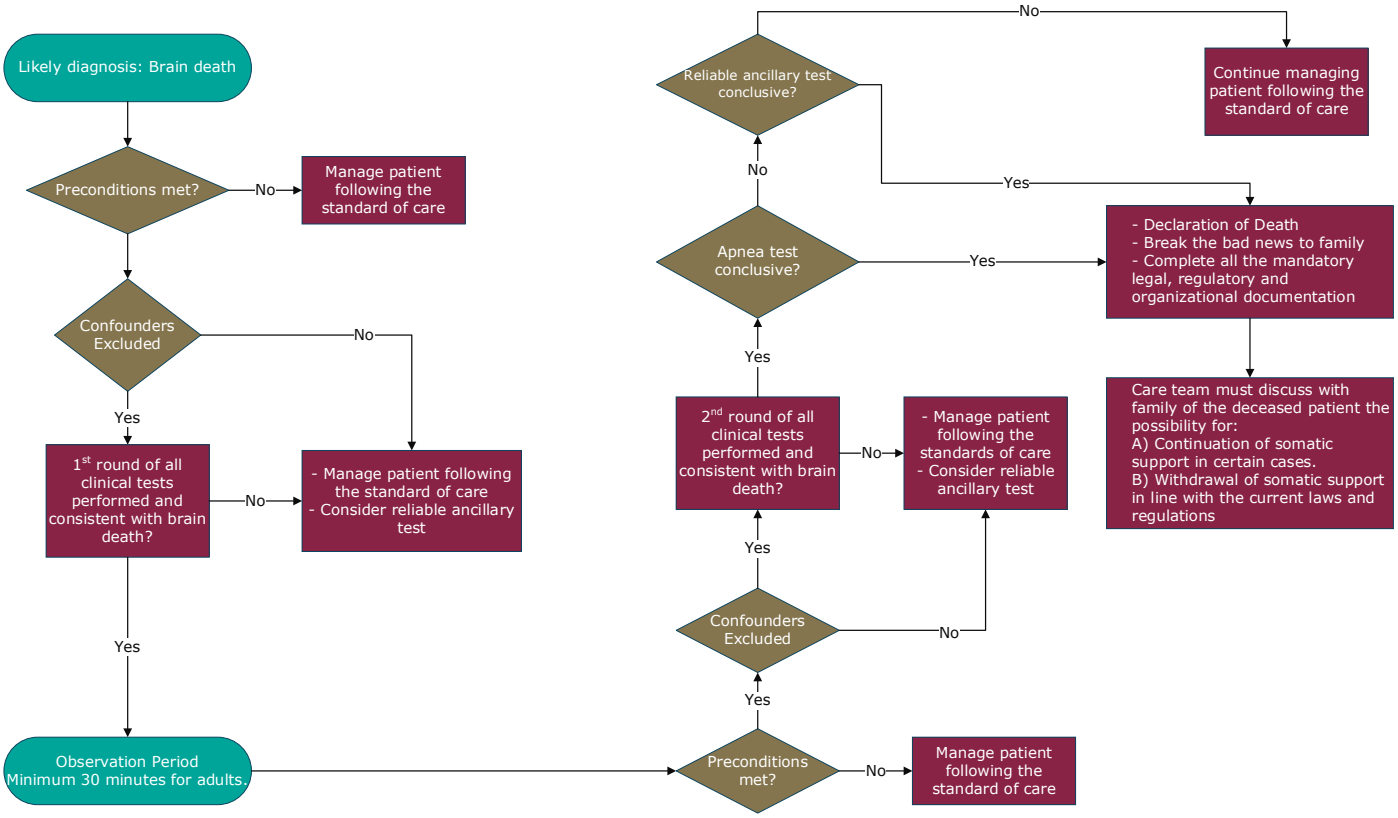
	Effect of certain medications including for example sedatives, anxiolytics, hypnotics, narcotics, muscle relaxants (neuromuscular-blocking agents), as well as drug intoxication and poisoning.	Effect of certain medications including for example sedatives, anxiolytics, hypnotics, narcotics, muscle relaxants (neuromuscular-blocking agents), as well as drug intoxication and poisoning.	Effect of certain medications including for example sedatives, anxiolytics, hypnotics, narcotics, muscle relaxants (neuromuscular-blocking agents), as well as drug intoxication and poisoning.
	Systolic blood pressure or mean arterial pressure below age-appropriate levels for paediatric age groups.	Systolic blood pressure or mean arterial pressure below age-appropriate levels for paediatric age groups.	Systolic blood pressure or mean arterial pressure below age-appropriate levels for paediatric age groups.
	Significant metabolic, endocrine,	Significant metabolic, endocrine, electrolyte or acid base disturbances	Significant metabolic, endocrine,

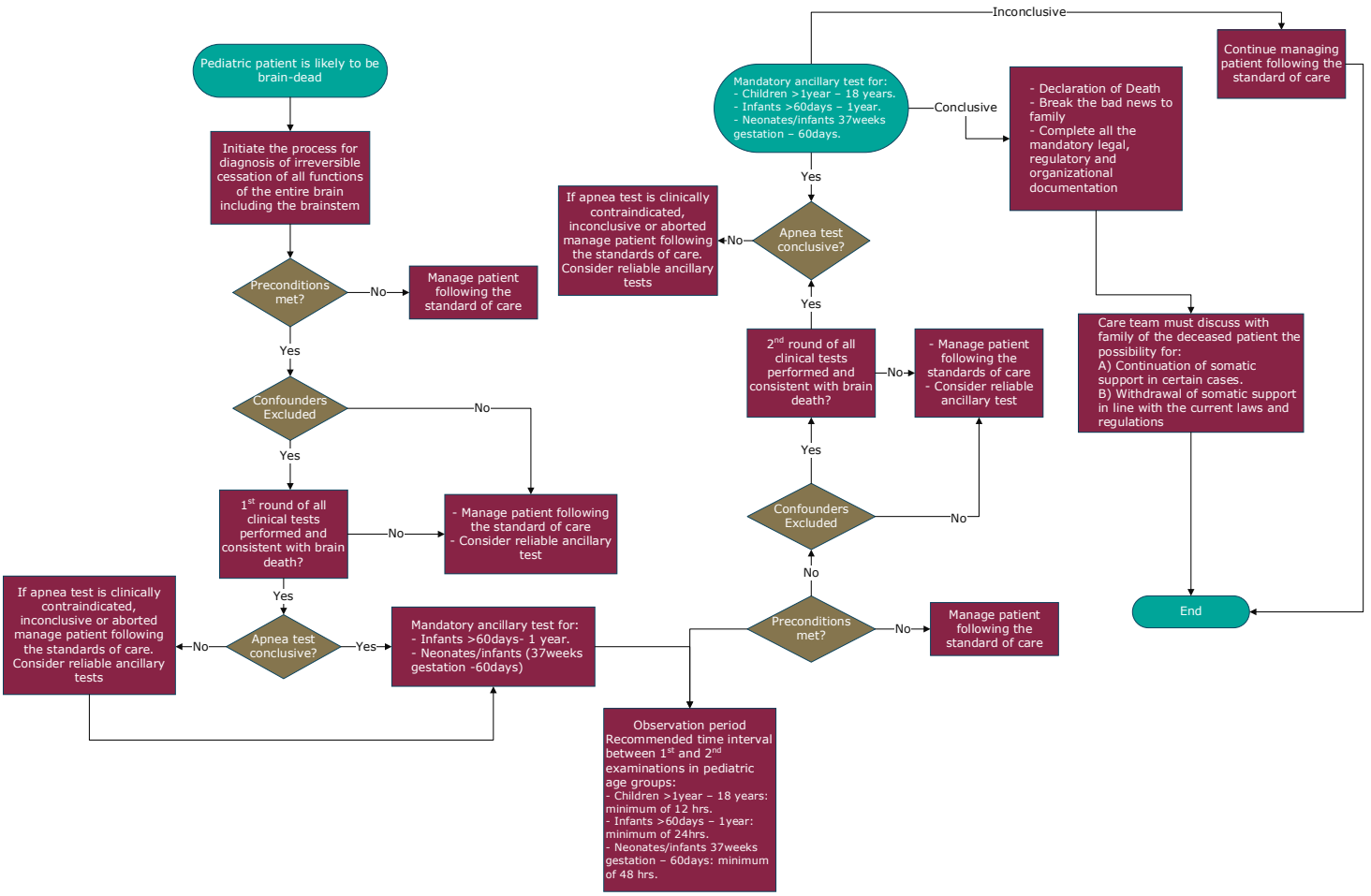
	electrolyte or acid base disturbances		electrolyte or acid base disturbances
	Cervical spinal cord injuries	Cervical spinal cord injuries	Cervical spinal cord injuries
Clinical Assessment			
2nd set of Examinations	Verify coma: • Demonstrate absence of brain activity as evidenced by seizures, decerebrate or decorticate posturing. • Demonstrate absence of any grimacing or facial movement, or any limb movements in response to deep pressure (noxious stimuli) applied to temporomandibular joints and the supraorbital notches. Demonstrate absence of brainstem reflexes: • Pupillary response to bright light • Corneal • Oculocephalic (contraindicated when cervical spine unstable) • Oculovestibular (tympanic membranes must be intact): Irrigate with ice-cold water, • 50 ml in adults and 20 ml in children • Gag • Cough	Verify coma: • Demonstrate absence of brain activity as evidenced by seizures, decerebrate or decorticate posturing. • Demonstrate absence of any grimacing or facial movement, or any limb movements in response to deep pressure (noxious stimuli) applied to temporomandibular joints and the supraorbital notches. Demonstrate absence of brainstem reflexes: • Pupillary response to bright light • Corneal • Oculocephalic (contraindicated when cervical spine unstable) • Oculovestibular (tympanic membranes must be intact): Irrigate with ice-cold water, • 50 ml in adults and 20 ml in children • Gag • Cough	Verify coma: • Demonstrate absence of brain activity as evidenced by seizures, decerebrate or decorticate posturing. • Demonstrate absence of any grimacing or facial movement, or any limb movements in response to deep pressure (noxious stimuli) applied to temporomandibular joints and the supraorbital notches. Demonstrate absence of brainstem reflexes: • Pupillary response to bright light • Corneal • Oculocephalic (contraindicated when cervical spine unstable) • Oculovestibular (tympanic membranes must be intact): Irrigate with ice-cold water, 50 ml in • adults and 20 ml in children • Gag • Cough

	• Sucking reflex • Rooting reflex		
Apnea Test	2nd Apnea test This test should be performed on a hemodynamically stable patient, if not clinically contraindicated, after successfully and conclusively completing the clinical examinations and in the absence of brainstem reflexes	2nd Apnea test This test should be performed on a hemodynamically stable patient, if not clinically contraindicated, after successfully and conclusively completing the clinical examinations and in the absence of brainstem reflexes	2nd Apnea test This test should be performed on a hemodynamically stable patient, if not clinically contraindicated, after successfully and conclusively completing the clinical examinations and in the absence of brainstem reflexes
Mandatory ancillary testing(unless clinically contraindicated)	1) EEG, or 2) Tests that confirm the absence of brain perfusion: • Digital Subtraction Angiography (DSA) (4-vessels) • SPECT (Radionuclide study using brain specific tracers) Note: In cases of decompressive craniectomy, any vascular-based ancillary test is not reliable	1) EEG, or 2) Tests that confirm the absence of brain perfusion: • Digital Subtraction Angiography (DSA) (4-vessels) • SPECT (Radionuclide study using brain specific tracers) Note: In cases of decompressive craniectomy, any vascular-based ancillary test is not reliable.	1) EEG, or 2) Tests that confirm the absence of brain perfusion: • Digital Subtraction Angiography (DSA) (4-vessels) • SPECT (Radionuclide study using brain specific tracers) Note: In cases of decompressive craniectomy, any vascular-based ancillary test is not reliable

Pathway A- Brain death in Adult Patients



Pathway B- Brain death in Pediatric Patients



5.2 Revision History

Date	Change(s)
14/02/2025	Creation of Adjudication Guideline-External Instruction Template.
01/05/2025	V.1.1 General Content review and coverage section update Addition of Questionnaire