

ICANS treatment algorithm

Every patient should have a baseline ICE assessment

Baseline CT or MRI brain is recommended



If ICANS is suspected, **immediately** contact the CAR-T team

Management should be guided by the CAR-T consultant in conjunction with a neurologist

If concurrent CRS also follow the CRS management algorithm



If ICANS is suspected a thorough neurological examination should be performed. The following investigations should be performed:

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- EEG
- MRI / CT Brain
- Frequent monitoring for cognitive function e.g. handwriting tests
- Three times daily ICE assessment
- Consider diagnostic lumbar puncture

Alternative causes of neurological dysfunction such as infection, opioid toxicity, haemorrhage, drugs, electrolyte imbalance or metabolic acidosis should be considered and treated



Follow ICANS management table below

Patients must be monitored closely and treatment rapidly escalated if there is lack of clinical response or further deterioration.

CAR-T toxicity treatment decisions should be undertaken by the attending consultant / CAR-T team and escalation plan pre-empted where possible to support rapid treatment escalation when required.

(If part of a clinical trial, contact the trial team and follow the specific trial protocol for management of ICANS)

ICANS management table

Grade 1 ICANS ICE score 7-9 Awakes spontaneously	• Regular neurological observations including ICE score • Commence seizure prophylaxis (if not already prescribed) • Single dose dexamethasone 10mg • If no response within 12 -24hrs treat as per grade 2
Grade 2 ICANS ICE score 3-6 Awakes to voice	The management of grades 2, 3 & 4 can be merged to permit rapid escalation of ICANS management if there is lack of clinical response or further deterioration • Regular neurological observations including three times daily ICE score • Repeat neuroimaging and EEG • Commence seizure prophylaxis / treatment • Inform/transfer to ICU • Administer dexamethasone 10mg IV QDS • If no response within 24hrs, administer anakinra - see drug monograph • If no response within further 24hrs consider switching dexamethasone to methylprednisolone IV and consider alternative agents
Grade 3 ICANS ICE score 0-2 Awakes only to tactile stimuli Seizures that resolve rapidly Focal cerebral oedema on imaging	
Grade 4 ICANS ICE score 0 Unroutable Prolonged (>5min) or frequent seizures Deep focal motor weakness Diffuse cerebral oedema on neuroimaging	