Supplementary 1

All adult patients with minimal, mild and moderate head injury (GCS 9-15) within 24 hours of injury

See help sheet for explanations and more details

Moderate

GCS 9-13

Mild
high-risk

GCS 14-15 *and*

- Posttraumatic seizures
- Focal neurological deficits
- Clinical signs of depressed or basal skull fracture
- Shunt-treated hydrocephalus
- Therapeutic anticoagulation or coagulation disorders

Mild
medium-risk

GCS 14-15 *and*

- BOTH age ≥65 years *AND* anti-platelet medication

Mild
low-risk

GCS 14

or

GCS 15 *and*

- Suspected/confirmed loss of consciousness
- Repeated vomiting (≥2 episodes)

Minimal

GCS 15

No → No → No → No →

Yes → Yes → Yes → Yes → Yes →

CT

CT
- Consider admission for observation ≥12 hours after injury as an alternative option

S100B
- If <6 hrs after injury, sample serum for S100B analysis
- If ≥6 hrs, extracranial injury or if S100B is unavailable, do CT

< 0.10 µg/L

≥ 0.10 µg/L

CT normal or abnormal

CT abnormal

CT normal

CT
- Consider admission for observation ≥12 hours after injury as an alternative option

CT abnormal

CT normal

Admission for observation ≥24 hours
- Consider consultation with neurosurgeon
- Repeat CT if neurological and/or GCS (≥2 points) deterioration

Discharge with oral and written instructions
- Some patients may need admission for reasons other than their head injury
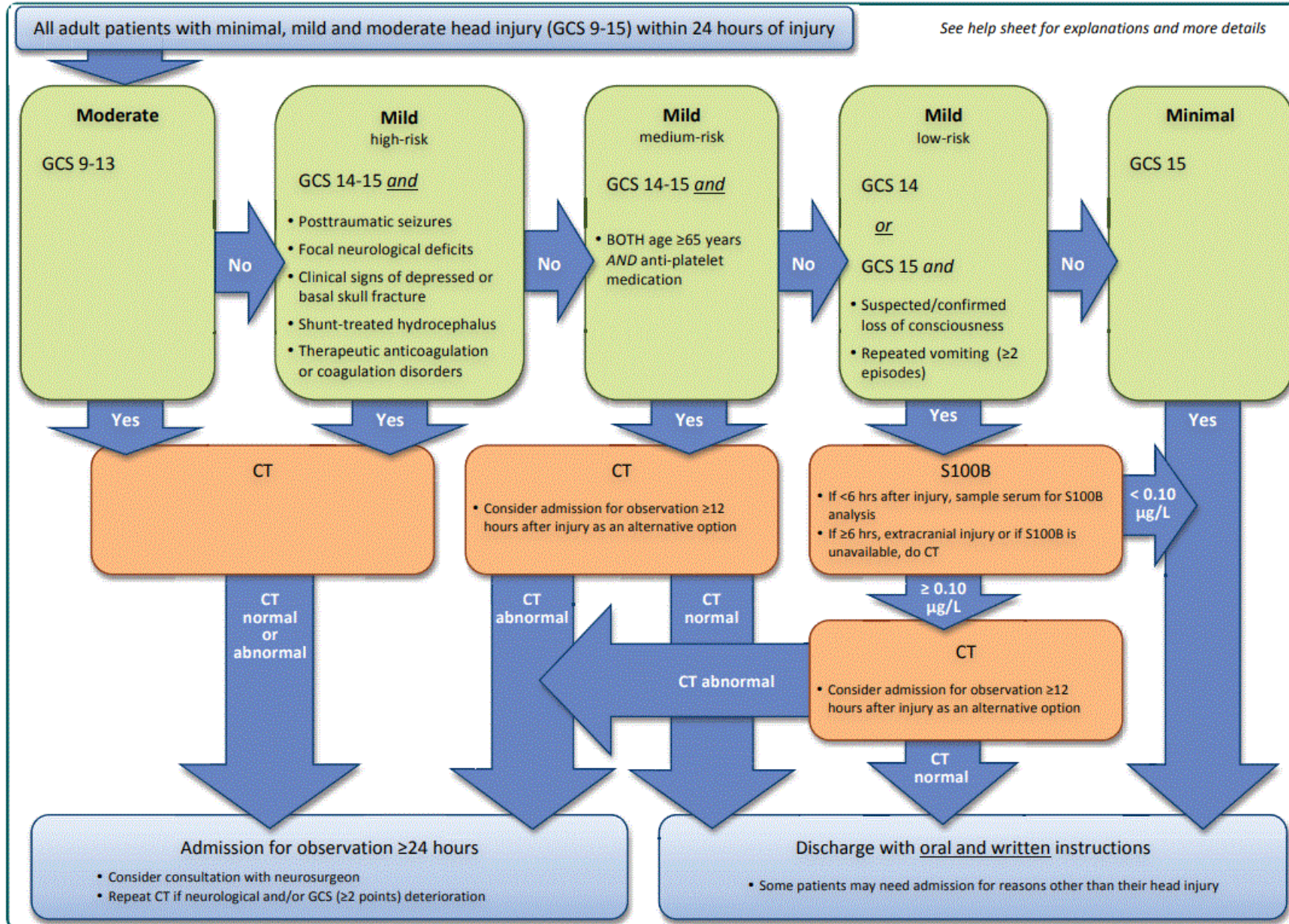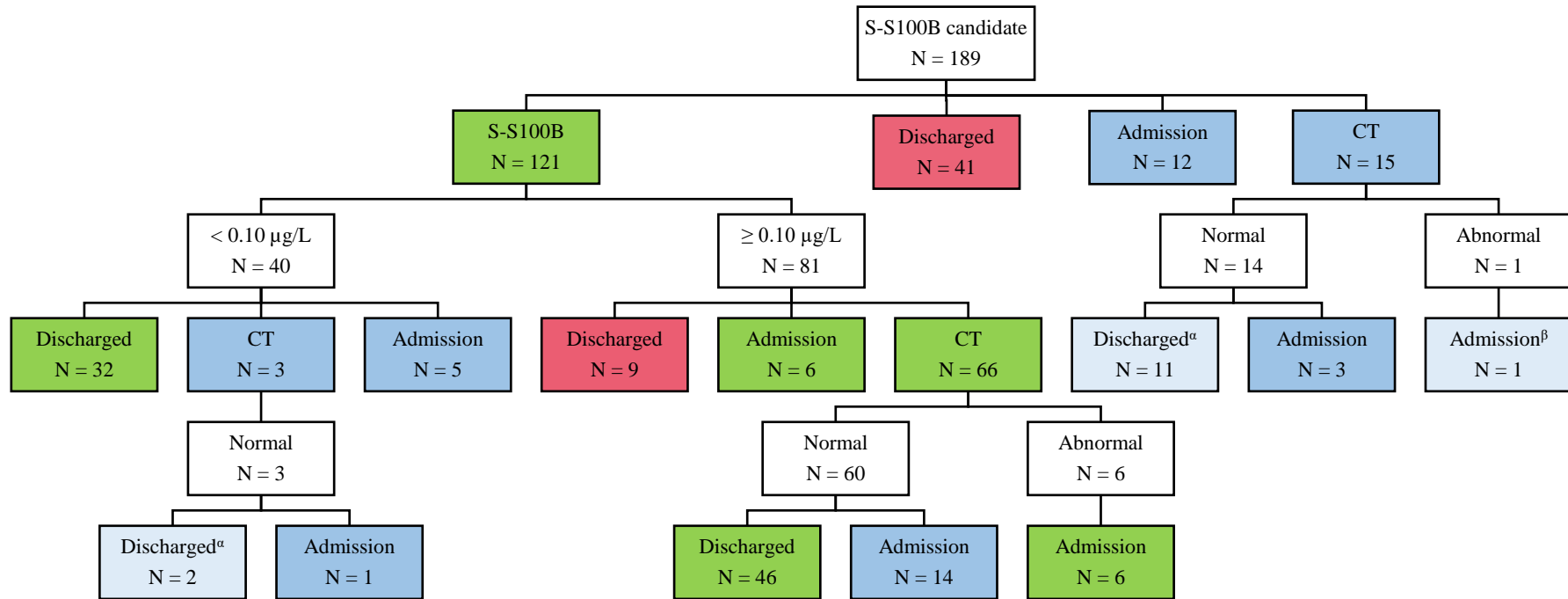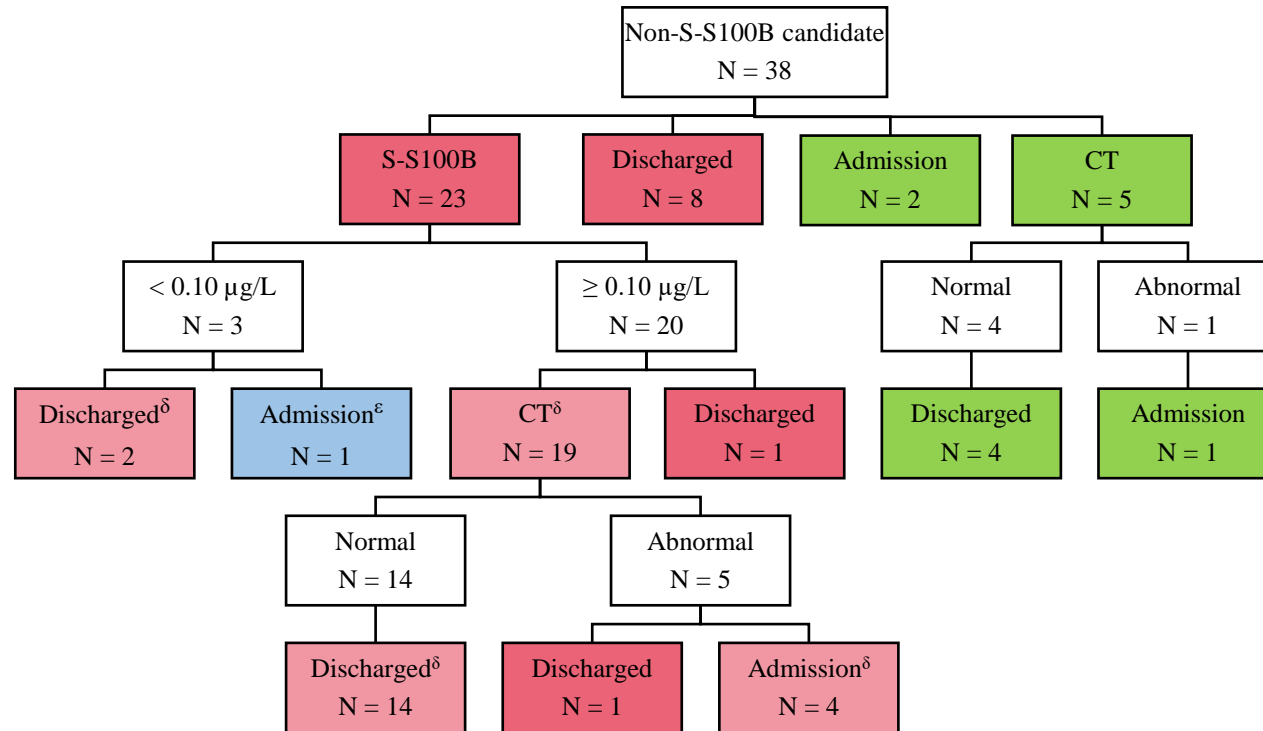
Supplementary 2

Distribution of patients eligible for S-S100B analysis

Color shades: green = correct triage, blue = overtriage and red = undertriage.
α = correctly discharged due to normal head CT, though the head CT was not recommended.

β = correctly admitted due to abnormal head CT, though the recommended management would be by initiation with an S-S100B sample.

Supplementary 3

Distribution of patients not eligible for S-S100B analysis

Color shades: green = correct triage, blue = overtriage and red = undertriage.

δ Not recommended initial S-S100B sampling, though subsequent management is correct.

ε Not recommended initial S-S100B sampling (undertriage) followed by admission, despite a normal S-S100B level.