



Prince of Wales Hospital &
Community Health Services



Health
South Eastern Sydney
Local Health District

NSW Telestroke Service

Acute Stroke Assessment Protocol (ASAP) Tool

Updates- May 2023



Rapid stroke
assessment and
recommendation



Acute Stroke Assessment Protocol (ASAP) Tool

The ASAP tool is:

- designed to support fast, safe and effective care for use when assessing all potential stroke patients
- based on the NIHSS which is a standardised clinical assessment tool for stroke

To access the tool, click on the link from your local intranet page

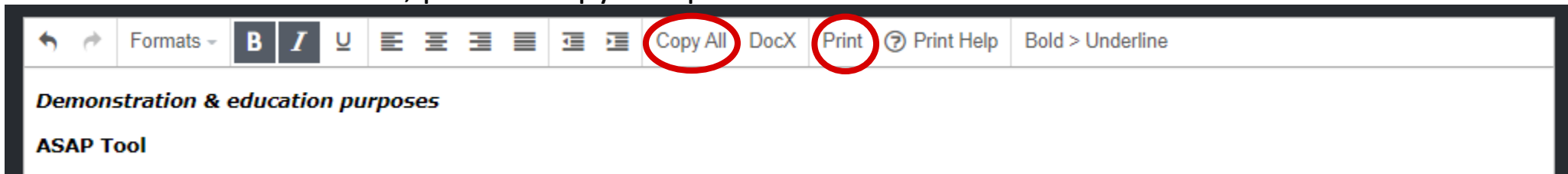
When all sections are completed, it will indicate a recommendation:

potential candidate for hyperacute assessment

not a candidate for hyperacute stroke assessment

Keep ASAP tool open whilst contacting the NSW Telestroke Neurologist

At the end of the consultation, print or copy and paste notes into local medical record



Reason for accessing ASAP tool

Patient assessment Demonstration & education purposes

ASAP tool will load once reason is confirmed.

Select "*patient assessment*" for all suspected acute stroke patients

Select "*demonstration & education*" for any training activity



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Patient Details

Medical record number

11111111

Age

65

Presentation

Last known well

< 4.5 hours

Last known well, not when found with deficits.

Use time of onset of focal neurological deficits if global symptoms such as headache / nausea / vertigo / malaise also present.

Summary of events

witnessed sudden onset of left sided weakness

Premorbid Functions

Living situation

Independent living

Mobility

Doesn't require assistance from others for mobil...

Toileting

Not significantly dependent on others

Higher Centers

Consciousness

0: Alert

Language

0: Normal; no obvious speech deficit

Dysarthria

0: Normal; clear and smooth speech

Orientation & comprehension

What age are you?

✓ Correct Incorrect

What month is it?

✓ Correct Incorrect

Close then open your eyes

✓ Correct Incorrect

Make a fist and open it again

✓ Correct Incorrect

Demonstration & education purposes

ASAP Tool

Patient details: MRN: 11111111, Age: 65

Presentation:

Last seen well: < 4.5 hours

Summary of events:

witnessed sudden onset of left sided weakness

Premorbid Functions:

Independent living

Doesn't require assistance from others for mobility

Not significantly dependent on others with toileting

Exam:

NIHSS score: 10

Alert.

No aphasia.

No dysarthria.

Oriented to age. Oriented to month.

Able to open and close eyes on command. Able to open and close fist on command.

No visual field loss. No visual neglect. Normal gaze.

Minor left facial weakness.

No right arm drift. No right leg drift.

Unable to get left arm off bed. No movement left leg.

No limb ataxia present in right arm. No limb ataxia present in left arm.

No limb ataxia present in right leg. No limb ataxia present in left leg.

No sensory loss on right. Absent left sensation. No sensory neglect on right. No sensory neglect on left.

Summary:

65 year old, from independent living, onset < 4.5 hours, doesn't require assistance from others for mobility, not significantly dependent on others with toileting, NIHSS 10

Potential candidate for hyperacute stroke assessment

Call NSW Telestroke neurologist 1300 87 88 87 to discuss case

Confirm local code stroke alert activated

For hyperacute work up after discussion with NSW Telestroke neurologist

Candidate for hyperacute stroke assessment:

18 G cannula inserted in ante cubital fossa

Telestroke order set ordered for imaging and bloods in EMR

ASAP text summary used for CT request

CT radiographer notified

Patient is stable (incl. airway) for direct to CT

In-charge Nurse and Senior MO aware

ASAP copied/printed into local medical record



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Patient Details

Medical record number Age

Presentation

Last known well

Summary of events

Last known well, not when found with deficits.
Use time of onset of focal neurological deficits if global symptoms such as headache / nausea / vertigo / malaise also present.

- < 4.5 hours
- > 4.5 - 24 hours
- > 24 hours
- Wake up

Last known well
 Gather as much information as possible from paramedics, family members or nursing staff (if inpatient). In unwitnessed events, it is important to consider the onset of symptoms when the patient was last known well and symptom free, not when the patient was found to have symptoms. For example, it can be useful to know that the patient had woken up, dressed and made breakfast before calling out for help after collapsing. In this situation, make your best guess at the last seen well time.

Enter brief summary of presenting symptoms



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Premorbid Functions

Living situation [Choose] ▾

Mobility [Choose] ▾

Toileting [Choose] ▾

Independent living
Retirement village
Residential aged care facility

Doesn't require assistance from others for mobility
Requires assistance from others for mobility

Not significantly dependent on others
Significantly dependent on others

Premorbid functions

Often when the patient arrives in the ED setting, there is limited information about their premorbid level of function. Gather as much information as possible from paramedics, family members or nursing staff (if inpatient). If unsure, chose independent options and continue to gather collateral history. This can be refined prior to a treatment decision being made.



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Higher Centers

Consciousness

[Choose] ▾

Language

[Choose] ▾

Dysarthria

[Choose] ▾

Orientation & comprehension

What age are you?	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect
What month is it?	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect
Close then open your eyes	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect
Make a fist and open it again	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect

0: Normal; clear and smooth speech

1: Mild-to-moderate dysarthria; some slurring of speech, but can be understood

2: Severe dysarthria; speech is too slurred and cannot be understood, or cannot produce any speech

0: Alert

1: Obeys/responds to minor stimulation

2: Response to only painful/repeated stimuli

3: Totally unresponsive

0: Normal; no obvious speech deficit

1: Loss of fluency/comprehension but able to communicate

2: Severe aphasia; Unable or very severe difficulty communicating, but not mute

3: Unable to speak or understand speech

Higher Centres

Select the patient's level of consciousness and language. Aphasic patients will often not get their age or the month correct, but it is important to attempt and score these items even when a patient clearly can't communicate or understand. In patients who are mute and do not follow any commands, you have demonstrated aphasia and this item should be scored a three. By default, mute patients score a two on the dysarthria item as well.


Enter the patient's orientation and comprehension.

Eyes

Visual Fields

Normal

Right Left




Unknown visual fields combination.

Visual Inattention

Normal

Right Left



Unknown visual inattention combination.

Best gaze

0: Normal	<input type="checkbox"/>				
		Right		Left	
1: Unable to look completely to the ...	<input type="checkbox"/>		<input type="checkbox"/>		
2: Forced deviation to the ...	<input type="checkbox"/>		<input type="checkbox"/>		

Eyes

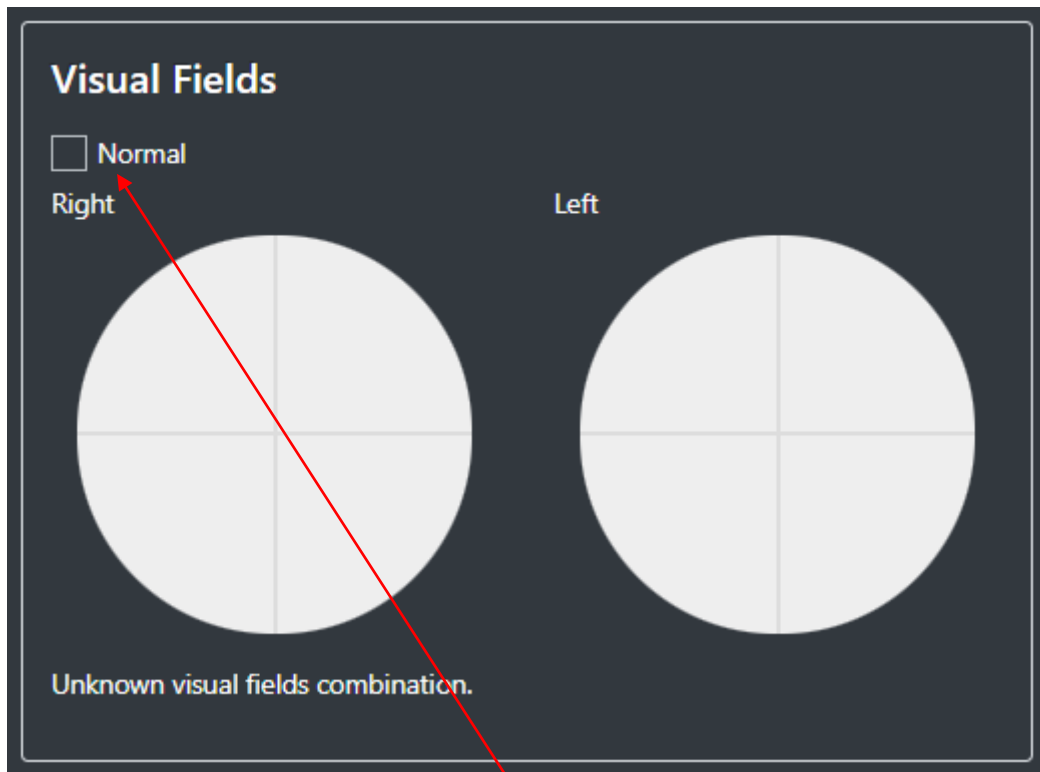
To document your eye examination using ASAP, consider that you are looking at the patient's eyes. This is broken down into three sections: **visual fields**, **visual inattention** and **best gaze**. If patient is not following commands, use confrontation to each side of eye.



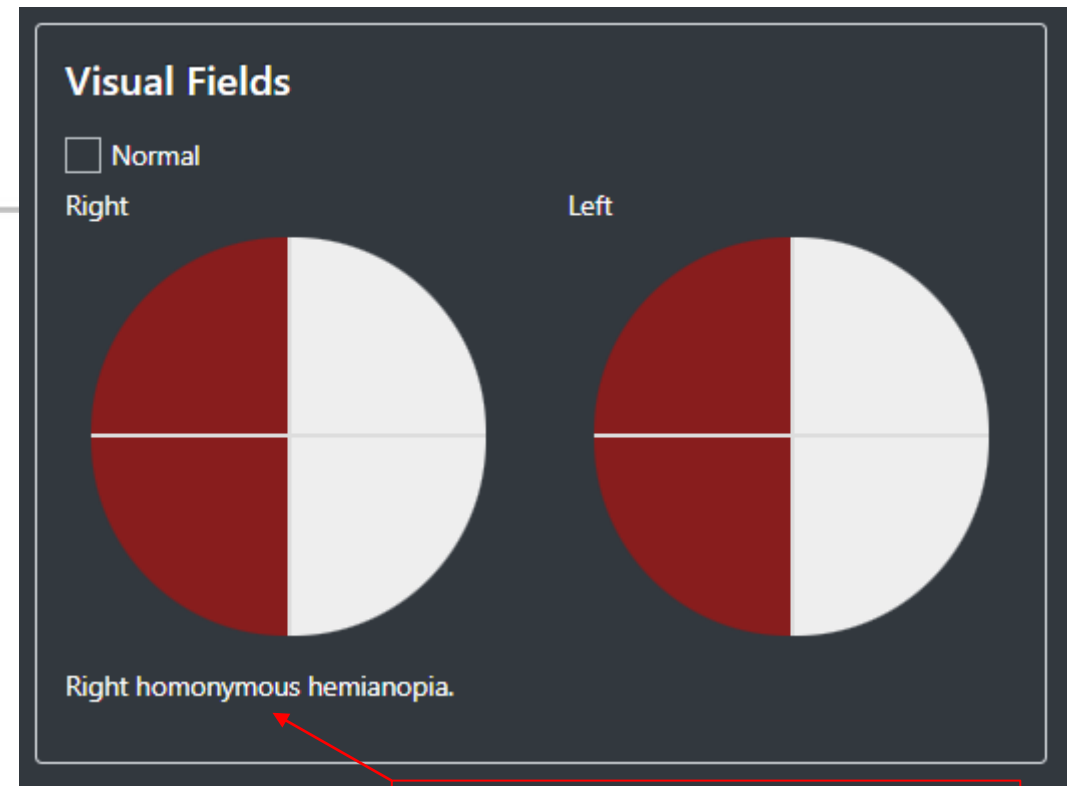
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Tick this box for normal visual fields



Details of syndrome based on your selection

Eyes: visual fields

Click in every quadrant that the patient is displaying visual impairment. For example, if they have a right sided homonymous impairment click on the left side of the diagram (for both eyes).

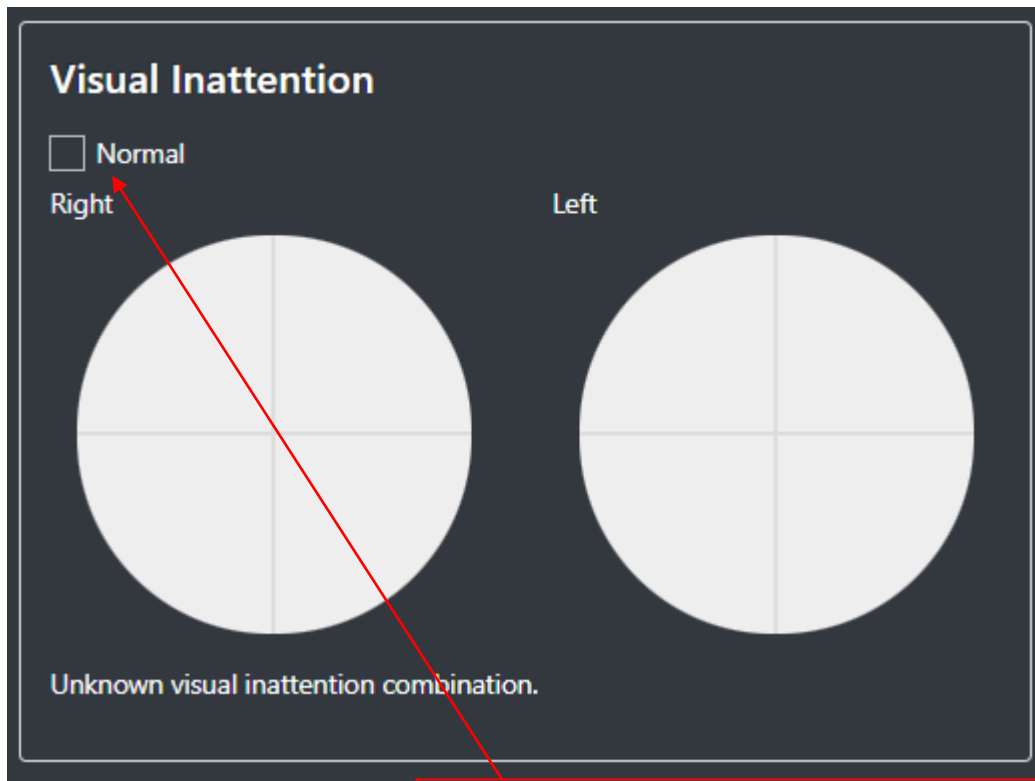
Note: if you select an atypical pattern then this will be recorded and no points are awarded in the NIHSS score.



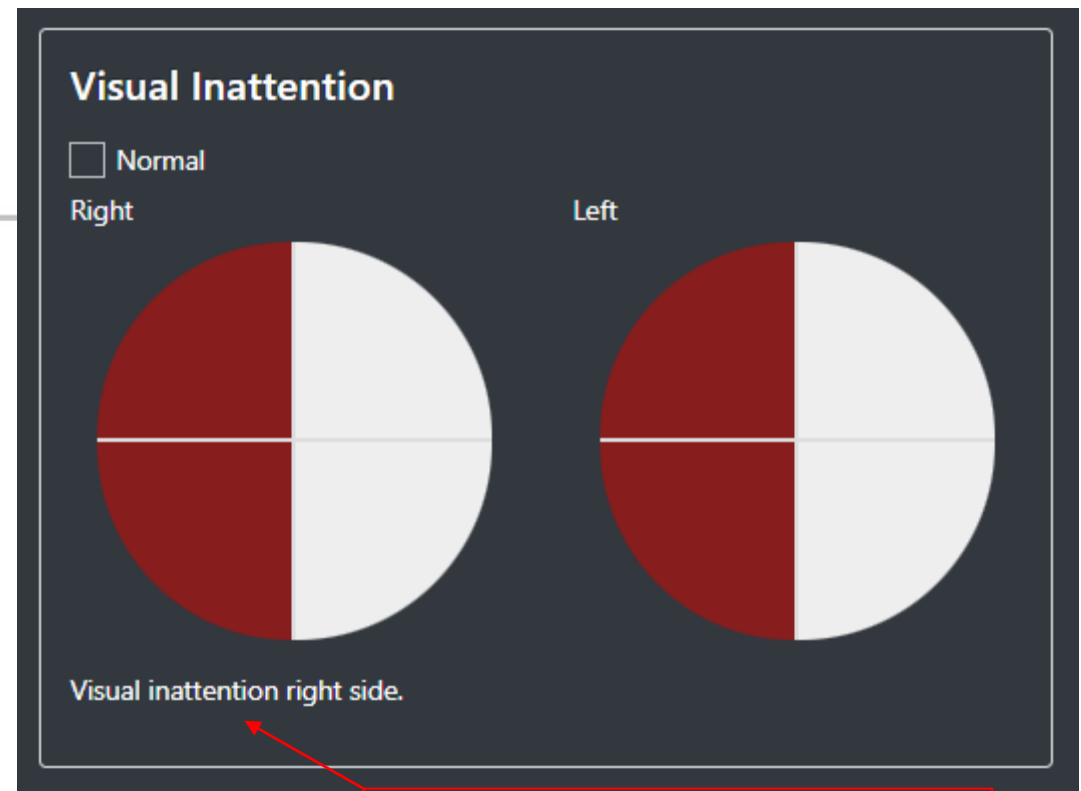
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Tick this box for normal visual inattention



Details of syndrome based on your selection

Eyes: visual inattention

Click in every quadrant that the patient is displaying visual inattention. Inattention or neglect is present when the patient is unable to detect bilateral visual stimuli. If they are unable to detect any stimulus on the affected side due to visual loss, the score is normal.

Best gaze

0: Normal

Right

Left

1: Unable to look completely to the ...

2: Forced deviation to the ...

Eyes: best gaze

Test horizontal eye movements. Click on the appropriate box for best gaze.



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Motor

Right side normal Left side normal

Right facial strength [Choose] ▾ Left facial strength [Choose] ▾

Right arm strength [Choose] ▾ Left arm strength [Choose] ▾

Right leg strength [Choose] ▾ Left leg strength [Choose] ▾

Right arm coordination [Choose] ▾ Left arm coordination [Choose] ▾

Right leg coordination [Choose] ▾ Left leg coordination [Choose] ▾

Tick this box for normal motor

Motor

Complete the motor and coordination sections for both sides. In patients who do not respond to commands, place upper limb at 45 degrees or lower limb at 30 degrees. If limb falls immediately, you have demonstrated weakness and score accordingly. The finger-nose-finger and heel-shin tests are performed for limb ataxia. Only score for ataxia if the findings are not due to weakness in that limb. If you are unsure, don't score it.

Score pre-existing symptoms: some patients have pre-existing deficits which can complicate interpretation of the NIHSS stroke scale score. Your job in this case is to complete the examination as you normally would, scoring for all deficits. In this situation it is also useful to take a good history, documenting what the pre-existing deficits are so that you can inform the NSW Telestroke neurologist, as treatment decisions will depend on which symptoms are new.

0: Normal

1: Minor paralysis (loss of nasolabial folds, asymmetry)

2: Partial paralysis but sparing of the forehead

3: Complete paralysis with involvement of the forehead

Motor

Right side normal

Right facial strength

[Choose] ▾

Right arm strength

[Choose] ▾

Right leg strength

[Choose] ▾

Right arm coordination

[Choose] ▾

Right leg coordination

[Choose] ▾

0: No ataxia

1: Ataxia

0: No drift; holds for full 10 seconds

1: Drifts down before 10 seconds, but does not hit bed/support

2: Some effort against gravity, drifts down to bed/support prior to the end of the 10 seconds

3: No effort against gravity; the arm falls immediately, however can move the arm in some form (e.g. shoulder shrug)

4: No movement

0: No drift; holds for full 5 seconds

1: Drifts down before 5 seconds, but does not hit bed/support

2: Some effort against gravity, drifts down to bed/support prior to the end of the 5 seconds

3: No effort against gravity; the leg falls immediately, however can move leg in some form

4: No movement



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Sensation	
Right-sided sensory exam (pinprick)	Left-sided sensory exam (pinprick)
[Choose] ▾	[Choose] ▾
Right-sided sensory attention	Left-sided sensory attention
[Choose] ▾	[Choose] ▾

0: No evidence of sensory loss

1: Pinprick less sharp or dull

2: Severe to total sensory loss

0: No abnormality

1: Inattention

Sensation

Check sensation on both sides of the face, arms and legs. If unable to respond, check for withdrawal from stimulus. You score for inattention or neglect if the patient can't detect simultaneous sensation on both sides when the patient has their eyes closed. Ask patient to point if unable to speak. If they are unable to detect any stimulus on the affected side due to motor loss, the score is normal.

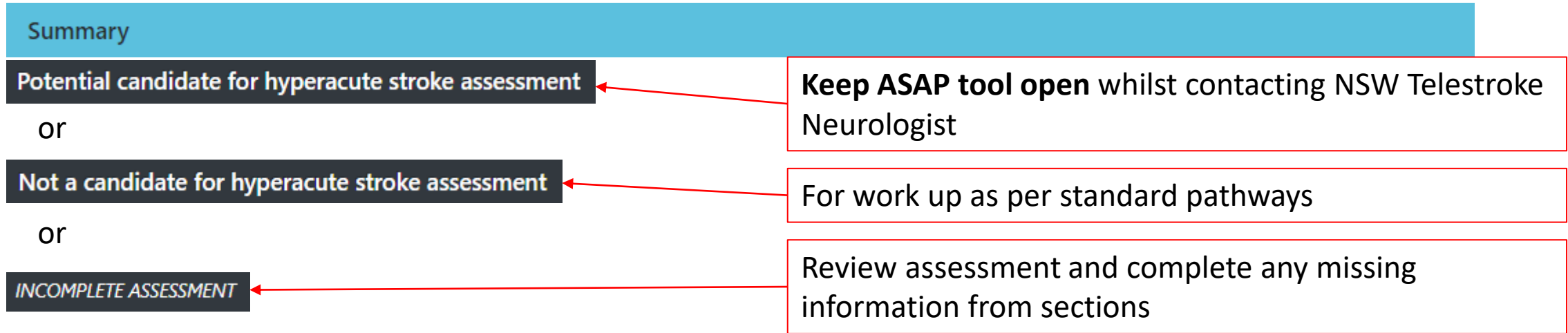


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ASAP recommendations



Summary

The ASAP tool will recommend a plan of care, either:

Potential candidate for hyperacute stroke assessment; not a candidate for hyperacute stroke assessment or incomplete assessment.

The NSW Telestroke Service can be contacted if clinical judgement indicates that the tool should be overridden, detailing rationale as to why patient requires consideration for hyperacute reperfusion therapies.



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Summary

Keep ASAP tool open for discussion with NSW TSS neurologist

From independent living, onset < 4.5 hours, doesn't require assistance from others for mobility, not significantly dependent on others with toileting, NIHSS 5

Potential candidate for hyperacute stroke assessment

- Call NSW Telestroke neurologist 1300 87 88 87 to discuss case
- Confirm local code stroke alert activated

Pathways

Select pathway in consultation with NSW Telestroke Neurologist

>

For hyperacute work up after discussion with NSW Telestroke neurologist

Not for hyperacute work up after discussion with NSW Telestroke neurologist

Choose a pathway



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Pathways

Select pathway in consultation with NSW Telestroke Neurologist

For hyperacute work up after discussion with NSW Telestroke neurologist

Not for hyperacute work up after discussion with NSW Telestroke neurologist

Candidate for hyperacute stroke assessment

- 18 G cannula inserted in ante cubital fossa
- Telestroke order set ordered for imaging and bloods in EMR
- ASAP text summary used for CT request
- CT radiographer notified
- Patient is stable (incl. airway) for direct to CT
- In-charge Nurse and Senior MO aware
- ASAP copied/printed into local medical record



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Pathways

Select pathway in consultation with NSW Telestroke Neurologist

For hyperacute work up after discussion with NSW Telestroke neurologist

Not for hyperacute work up after discussion with NSW Telestroke neurologist

Summary

Reasoning to decline [notes]

- Premorbid frailty
- Non stroke diagnosis more likely
- Minor deficit
- Not a candidate for thrombolysis
- >24 hours since onset

Next steps

- Recommend CT Brain and CT angiogram arch to COW (If radiology reports acute vessel occlusion, call back on the 1300 87 88 87)
- For local work up and pathways
- Not for further NSW Telestroke Service involvement at this stage
- If new symptoms arise or there is deterioration, the stroke pathway including ASAP can be repeated.

Case discussed with

- Prof. Ken Butcher
- Dr James Evans
- Dr Bill O'Brien
- Dr Carlos Garcia-Esperon
- Dr Tim Ang
- Dr Chris Blair
- Dr Leon Edwards
- Dr Alvin Chew
- Dr Neil Spratt
- Dr Mark Parsons
- Dr Candice Delcourt
- Dr Martin Jude
- Dr Paul Rees
- Dr James Hughes
- Dr Lisa Dark



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Summary

From residential aged care facility, onset > 24 hours, requires assistance from others for mobility, significantly dependent on others with toileting, NIHSS 10

Not a candidate for hyperacute stroke assessment

- For work up as per standard pathways
- Consider discussion with NSW Telestroke if major deficits in the field (NIHSS >8) that have now resolved or major deficits (NIHSS >8), premorbidly well and time of onset as yet unknown
- If new symptoms arise or there is deterioration, the stroke pathway including ASAP can be repeated.



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