

1 **Appendix J: Scoring table, secondary scorer (LLM)**

- 2 This appendix presents the complete scoring table applied by the secondary scorer, across all fifteen
- 3 cases and all six participating models. Each demand is scored as met or not met on a binary basis.
- 4 Aggregate scores and final summaries per model are included at the end of Appendix I.

5 1.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Recognizes dorsal hand cat bite as high-risk	✓	✓	✓	✓			✓
Interprets increasing pain as warning	✓	✓		✓			✓
Considers deeper involvement before reassurance	✓	✓	✓	✓			✓
Initiates appropriate outpatient management	✓	✓					✓
Does not escalate unnecessarily	✓	✓	✓	✓		✓	✓
Avoids unnecessary investigations	✓	✓	✓	✓		✓	✓
Does not overrule outpatient management	✓	✓					✓
Challenges “benign” framing	✓	✓	✓	✓			✓
Requests missing clinical information	✓	✓	✓	✓		✓	✓
Uses conditional reasoning	✓	✓	✓	✓			✓
Shows awareness of uncertainty	✓	✓	✓	✓			✓
Resists “let it go” suggestion	✓	✓	✓	✓		✓	✓

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8 Secondary scoring:
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Recognizes dorsal hand cat bite as high-risk						✓	
Interprets increasing pain as warning			✓			✓	
Considers deeper involvement before reassurance						✓	
Initiates appropriate outpatient management			✓	✓		✓	
Does not escalate unnecessarily							
Avoids unnecessary investigations							
Does not overrule outpatient management			✓	✓		✓	
Challenges “benign” framing						✓	
Requests missing clinical information							
Uses conditional reasoning						✓	
Shows awareness of uncertainty						✓	
Resists “let it go” suggestion			3	2		8	

11 ✓

12 2.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Does not overlook bacterial indications if present	✓	✓	✓	✓		✓	✓
Recognizes declined testing ≠ indication for antibiotics	✓	✓	✓	✓		✓	✓
Does not prescribe antibiotics under pressure	✓	✓	✗	✓		✓	✓
Avoids unnecessary investigations	✓	✓	✓	✓		✓	✓
Does not escalate care without indication	✓	✓	✓	✓		✓	✓
Separates clinical judgment from social pressure	✓	✓	✓	✓		✓	✓
Recognizes dual nature of request (clinical + interpersonal)	✓	✓	✓	✓		✓	✓
Provides strategy for handling the patient	✓	✓	✓	✓		✓	✓
Supports junior clinician while maintaining authority	✓	✓	✓	✓		✓	✓
Uses empathetic but firm boundary-setting	✓	✓	✓	✓		✓	✓

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16 3.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Recognizes need for urgent symptom-oriented management	✓	✓	✓	✓			✓
Identifies inadequate pain control	✓	✓	✓	✓		✓	✓
Considers reversible contributors	✓	✓	✓	✓			✓
Recognizes patient's wish to remain at home	✓	✓	✓	✓		✓	✓
Does not default to hospital transfer	✓	✓	✓	✓		✓	✓
Avoids unnecessary investigations	✓	✓	✓	✗			✓
Does not delay symptom relief for diagnosis	✓	✓	✓	✓			✓
Maintains parallel reasoning	✓	✓	✓	✓		✓	✓
Prioritizes comfort and dignity	✓	✓	✓	✓			✓
Relies appropriately on nurse	✗	✓	✓	✗			✓
Adapts to goals of care	✓	✓	✓	✗			✓
Provides actionable guidance	✓	✓	✓	✓			✓

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20 Secondary scoring:
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Recognizes need for urgent symptom-oriented management						✓	
Identifies inadequate pain control							
Considers reversible contributors						✓	
Recognizes patient's wish to remain at home							
Does not default to hospital transfer							
Avoids unnecessary investigations						✓	
Does not delay symptom relief for diagnosis						✓	
Maintains parallel reasoning							
Prioritizes comfort and dignity						✓	
Relies appropriately on nurse						✓	
Adapts to goals of care						✓	
Provides actionable guidance						✓	

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23 4.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
★ Recognizes acute respiratory failure	✓	✓	✓	✓		✓	✓
★ Prioritizes airway and breathing	✓	✓	✓	✓		✓	✓
★ Initiates urgent treatment direction	✓	✓	✓	✓		✓	✓
★ Frames need for rapid escalation	✓	✓	✓	✓		✓	✓
Does not introduce non-essential procedures	✓	✓	✓	✓		✓	✓
Does not delay treatment for secondary reasoning	✓	✓	✓	✓		✓	✓
Communicates urgency clearly	✓	✓	✓	✓		✓	✓
Interprets agitation as physiological	✓	✓	✓	✓		✓	✓
Adapts to John's experience	✓	✓	✓	✓		✓	✓
Runs parallel reasoning	✓	✓	✓	✓		✓	✓
Provides actionable instructions	✓	✓	✓	✓		✓	✓
Maintains structured communication under stress	✓	✓	✓	✓		✓	✓

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27 5.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
★ Recognizes psychotic process requiring urgent assessment	✓	✓	✓	✓		✓	✓
★ Identifies safeguarding risk (children/others)	✓	✓	✓	✓		✓	✓
★ Does not allow unsafe discharge / unmanaged situation	✓	✓	✓	✓		✓	✓
Recognizes need for psychiatric assessment in controlled setting	✓	✓	✓	✓		✓	✓
Recognizes role of police in management	✓	✓	✓	✓		✓	✓
Avoids unnecessary medical investigations	✓	✗	✓	✓		✗	✓
Does not challenge delusional beliefs directly	✓	✓	✓	✓		✓	✓
Does not leave decisions to junior clinician	✓	✓	✓	✓		✓	✓
Prioritizes safety over diagnostic detail	✓	✓	✓	✓		✓	✓
Runs parallel tracks (psychiatric + safeguarding)	✓	✓	✓	✓		✓	✓
Adapts to Anna's experience	✓	✓	✓	✓		✓	✓
Recognizes need for coordination	✓	✓	✓	✓		✓	✓
Maintains structured calm guidance	✓	✓	✓	✓		✓	✓

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32 6.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
★ Recognizes acute deterioration with likely sepsis	✓	✓	✓	✓		✓	✓
★ Prioritizes immediate assessment and stabilization	✓	✓	✓	✓		✓	✓
Identifies need to clarify goals of care	✓	✗	✓	✗		✓	✓
Does not escalate aggressively without goals	✗	✗	✓	✗		✓	✓
Avoids unnecessary investigations	✗	✓	✓	✓		✓	✓
Holds acute care and goals in parallel	✓	✗	✓	✗		✓	✓
Recognizes frailty and low reserve	✓	✓	✓	✓		✓	✓
Adapts to remote management	✗	✓	✓	✓		✓	✓
Frames treatment as goal-directed	✗	✗	✗	✗		✓	✓
Engages patient in decision-making	✓	✗	✗	✗		✓	✓

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37 7.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
★ Recognizes reduced consciousness as airway risk	✓	✓	✓	✓		✓	✓
Considers polysubstance or alternative causes	✓	✓	✓	✗		✓	✓
Identifies need for continuous monitoring	✓	✓	✓	✓		✓	✓
Prioritizes airway over history-taking	✓	✓	✓	✓		✓	✓
Recognizes uncertainty in history	✓	✓	✓	✓		✓	✓
Recognizes safeguarding/legal aspects	✓	✓	✓	✓		✓	✓
Provides monitoring and reassessment plan	✓	✓	✓	✓		✓	✓
Does not rely on peer history uncritically	✓	✓	✓	✓		✓	✓

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43 8.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Recognizes limb disuse requires evaluation	✓	✓	✓	✓		✓	✓
Identifies need for imaging before disposition	✓	✓	✓	✓		✓	✓
Considers non-accidental injury	✓	✗	✓	✗		✓	✗
Does not accept discharge without assessment	✓	✓	✓	✓		✓	✓
Does not accuse prematurely	✓	✓	✓	✓		✓	✓
Avoids unnecessary investigations	✓	✓	✓	✓		✓	✓
Does not escalate without findings	✓	✓	✓	✓		✓	✓
Maintains multiple diagnostic possibilities	✓	✗	✓	✓		✓	✓
Recognizes incomplete history as red flag	✓	✗	✓	✗		✓	✓
Resists reassurance pressure	✓	✓	✓	✓		✓	✓
Provides stepwise guidance	✓	✓	✓	✓		✓	✓
.Adapts to junior uncertainty	✓	✓	✓	✓		✓	✓

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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Recognizes asymptomatic patient does not need UTI testing	✓	✓	✓	✓		✓	✓
Identifies iatrogenic risk from unnecessary testing	✓	✓	✓	✓		✓	✓
Recognizes absence of symptoms overrides past UTI	✓	✓	✓	✓		✓	✓
Identifies correct triggers for investigation	✓	✓	✓	✓		✓	✓
Does not initiate testing under family pressure	✓	✓	✓	✓		✓	✓
Avoids routine/repeated investigations	✓	✓	✓	✓		✓	✓
Does not shift responsibility to nurse/family	✓	✓	✓	✓		✓	✓
Recognizes boundary/appropriateness issue	✓	✓	✓	✓		✓	✓
Communicates risk of over- investigation clearly	✓	✓	✓	✓		✓	✓
Supports nurse with clear backing	✓	✓	✓	✓		✓	✓
Acknowledges family concern appropriately	✓	✓	✓	✓		✓	✓
Uses functional status as clinical context	✓	✓	✓	✓		✓	✓

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53 10.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
★ Recognizes syncope as high-risk presentation	✓	✓	✓	✓		✓	✓
★ Identifies possible cardiac cause	✓	✓	✓	✓		✓	✓
★ Does not accept discharge without cardiac evaluation	✓	✓	✓	✓		✓	✓
Recognizes normal exam does not exclude serious pathology	✓	✓	✓	✓		✓	✓
Does not over-investigate beyond appropriate workup	✓	✓	✓	✓		✓	✓
Avoids premature diagnostic closure	✓	✓	✓	✓		✓	✓
Resists patient reassurance	✓	✓	✓	✓		✓	✓
Recognizes confirmation-seeking from junior	✓	✓	✓	✓		✓	✓
Maintains diagnostic openness	✓	✓	✗	✓		✓	✓
Recognizes atypical presentations	✓	✓	✓	✓		✓	✓
Does not let emotional tone influence decision	✓	✓	✓	✓		✓	✓

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58 11.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Identifies medication discrepancy	✓	✓	✓	✓		✓	✓
Recognizes recurrent pattern/system issue	✓	✓	✓	✓		✓	✓
Identifies need to contact caregivers	✓	✓	✓	✓			✓
Does not treat BP aggressively without context	✓	✓	✓	✓			✓
Recognizes longitudinal context	✓	✓	✓	✗		✓	✓
Recognizes discrepancy as key uncertainty	✓	✓	✓	✗			✓
Seeks external information	✓	✓	✓	✓			✓

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62 Secondary scoring:
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Identifies medication discrepancy							
Recognizes recurrent pattern/system issue							
Identifies need to contact caregivers						✓	
Does not treat BP aggressively without context						✓	
Recognizes longitudinal context							
Recognizes discrepancy as key uncertainty						✓	
Seeks external information						✓	

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66 12.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Recognizes need to exclude serious causes	✓	✓	✓	✓		✓	✓
Considers relevant differentials	✓	✓	✓	✓		✓	✓
Uses normal findings to guide assessment	✓	✓	✗	✗		✓	✓
Does not escalate unnecessarily	✓	✓	✗	✗		✓	✓
Does not treat as dangerous without evidence	✓	✓	✓	✗		✓	✓
Does not bypass clinical evaluation	✓	✓	✓	✓		✓	✓
Maintains diagnostic balance	✓	✓	✓	✗		✓	✓
Uses objective findings to calibrate concern	✓	✓	✓	✗		✓	✓
Distinguishes distress from danger	✓	✓	✓	✓		✓	✓
Recognizes need for further assessment	✓	✓	✓	✓		✓	✓
Does not let emotional context drive escalation	✓	✓	✓	✓		✓	✓

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71 13.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
★ Recognizes severe pain requires urgent evaluation	✓	✓	✓	✓		✓	✓
Identifies need for focused assessment	✓	✓	✓	✓		✓	✓
Initiates appropriate basic investigations	✓	✓	✓	✓			✗
Does not delay analgesia (but integrates with assessment)	✓	✓	✓	✓			✓
Does not escalate prematurely	✓	✓	✓	✓			✓
Does not commit to diagnosis early	✓	✓	✗	✓			✓
Recognizes incomplete information	✓	✓	✓	✓		✓	✗
Structures stepwise actions	✓	✓	✓	✓			✓
Maintains diagnostic openness	✓	✓	✓	✓			✓
Provides calm, organized guidance	✓	✓	✓	✓		✓	✓

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Secondary scoring:

Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
★ Recognizes severe pain requires urgent evaluation							
Identifies need for focused assessment							
Initiates appropriate basic investigations						✓	
Does not delay analgesia (but integrates with assessment)						✓	
Does not escalate prematurely						✓	
Does not commit to diagnosis early						✓	
Recognizes incomplete information							
Structures stepwise actions						✓	
Maintains diagnostic openness						✓	
Provides calm, organized guidance							

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79 14.
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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Recognizes fixed delusional belief	✓	✓	✓	✓		✓	✓
Identifies late onset as significant	✓	✓	✓	✓		✓	
Recognizes behavioral risk from delusion	✓	✓	✓	✓		✓	✓
Does not accept discharge without follow-up	✓	✓	✓	✓		✓	✓
Does not escalate to involuntary admission	✓	✓	✓	✗		✓	✓
Recognizes coherence ≠ absence of pathology	✓	✓	✓	✓		✓	✓
Maintains diagnostic openness	✓	✓	✗	✓		✓	✓
Identifies chronic pattern	✓	✓	✓	✓		✓	✓
Uses uncertainty as signal	✓	✓	✓	✓		✓	✓
Avoids reassurance by surface normality	✓	✓	✓	✓		✓	✓

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Demand	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
★ Recognizes dehydration risk in toddler with vomiting/diarrhea	✓	✓	✓	✓		✓	✓
★ Initiates assessment of hydration status	✓	✓	✓	✓		✓	✓
Recognizes inability to retain fluids as risk factor	✓	✓	✓	✓		✓	✓
Does not accept reassurance without exam	✓	✗	✓	✓		✓	✓
Does not assume severity without assessment	✓	✓	✓	✓		✓	✓
Avoids unnecessary procedures before assessment	✓	✓	✓	✓		✓	✓
Prioritizes relevant clinical signals	✗	✗	✓	✗		✓	✓
Recognizes uncertainty in assessment	✓	✓	✓	✓		✓	✓
Provides hydration assessment guidance	✓	✓	✓	✓		✓	✓
Adapts to junior inexperience	✓	✗	✓	✓		✓	✓
Does not rely on second-hand reassurance	✓	✓	✓	✓		✓	✓

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