| Level of confidence (probability) | Description (CHART-DEL)                                                                                                                                                                                                 | Description (CHART-DEL-ICU)                                                                                                                                                                                                 | Example (CHART-DEL-ICU)                                                                 |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Definite (85%+)                  | Diagnosis is unequivocal; confirmed diagnosis made by an experienced reference standard rater (i.e., attending neurologist, geriatrician, psychiatrist).          | Diagnosis is unequivocal; confirmed diagnosis made by an experienced reference standard rater (i.e., attending neurologist, ICU physician, geriatrician, psychiatrist).                                 | “Issues for today: Delirium? hypoactive – try trazadone” [Physician Progress Notes]          |
| Probable (60-85%)                | a. All four Confusion Assessment Method (CAM) features are present in the notes: (1) acute onset/fluctuation (2) inattention (3) disorganized thinking or (4) altered level of consciousness. |
|                                 | b. Acute onset of disorientation or hallucinations, especially with evidence of reversibility or evidence of attribution to medications (in someone with no history of preexisting cognitive impairment) | a. All four Confusion Assessment Method (CAM) features are present in the notes: (1) acute onset/fluctuation (2) inattention (3) disorganized thinking or (4) altered level of consciousness (from CAM-ICU): Patient’s level of consciousness is anything other than alert, such as being vigilant (hyperalert), lethargic (drowsy but easily aroused), in a stupor (difficult to arouse) OR a score in the 10-point Richmond Agitation-Sedation Scale (RASS) of -3, -2, +1, +2, +3 or +4 |
|                                 |                                                                                                                                                    | b. An ICDSC score ≥ 4 is reported in the notes.                                                                                                               | “ICDSC 5, confused, does not communicate” [Physician Progress Notes]                           |
|                                 |                                                                                                                                                    | c. Acute onset of disorientation or hallucinations, especially with evidence of reversibility or evidence of attribution to medications (in someone with no history of preexisting cognitive impairment) |                                                                                                 |
| Possible (40-60%)                | Not all CAM features are present, but at least 2 or more, plus other                                                                            | Not all CAM features are present, but at least 2 or more, plus other                                                                                         | “Awake all night, restless pulling lines”                                                     |
| **Uncertain (10-40%)** | Cases where nurses wrote ambiguous statements unrelated to features of delirium (e.g., confusion), but nothing else—no description, no details about the confusion, and the next day no further comment. | Cases where healthcare providers wrote ambiguous statements unrelated to features of delirium (e.g., confusion), but nothing else—no description, no details about the confusion, and the next day no further comment. | [EMR] “O/E: RASS: -1 to +1” [Physician Progress Notes] |
|------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------|
| **No evidence (<10%)** | In general, the overarching principle is that the patient’s behavior must be well outside the range of normal behavior. So, for instance, a report of transient episode of disorientation upon awakening from a nap would not be considered abnormal. Forgetfulness or sleepiness as isolated symptoms are not sufficient. | In general, the overarching principle is that the patient’s behavior must be well outside the range of normal behavior. So, for instance, a report of transient episode of disorientation upon awakening from a nap would not be considered abnormal. Forgetfulness or sleepiness as isolated symptoms are not sufficient. | [EMR] “drowsy, pain not controlled with movement, confused” |

Abbreviations: EMR, electronic medical record; ICDSC, Intensive Care Delirium Screening Checklist; RASS, Richmond Agitation-Sedation Score.
Supplementary Figure S1. Participant flow diagram.