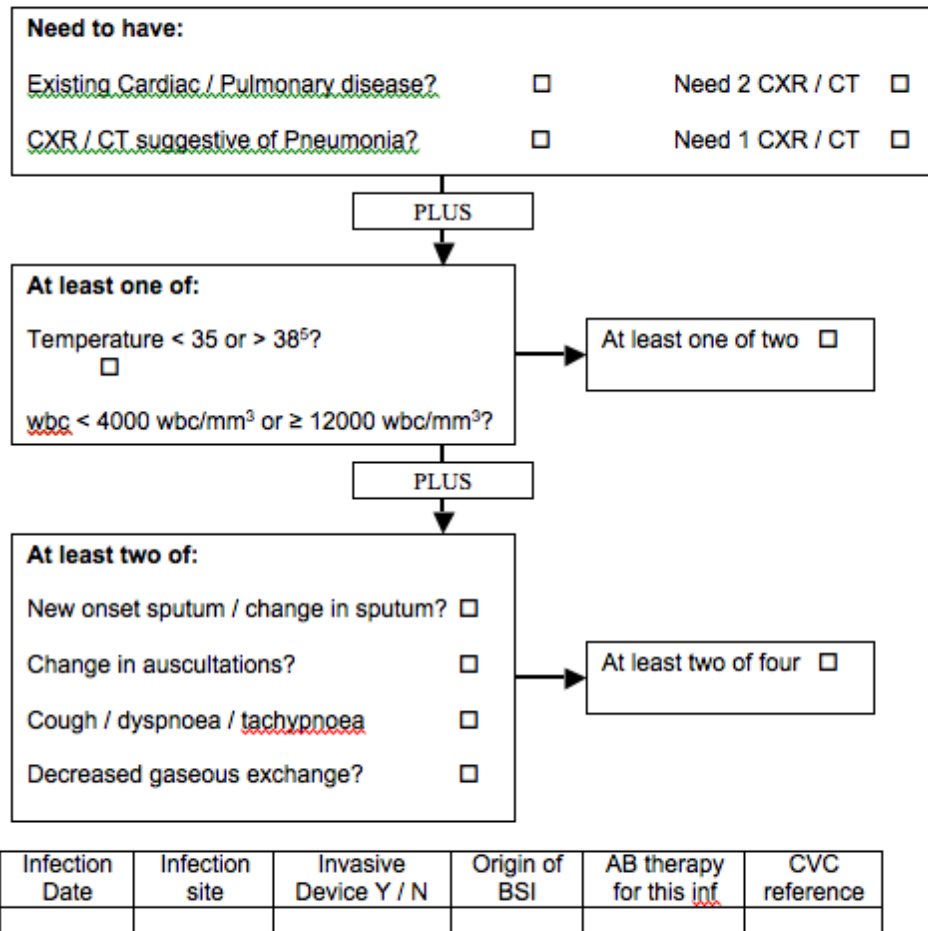


Flowchart for diagnosis of VAP



A minimum of 4 yes are required for VAP diagnosis.

Figure 1 Legend: Operational definition of VAP using objective criteria

Diagnosis of VAP was recorded if four of above criteria met:

One chest X-ray or CT scan with a suggestive image of pneumonia in patients without underlying cardiac or pulmonary disease, along with at least one of the following: high or low temperature or high or low white blood count (wbc); and at least two of four clinical features.

Operational Definitions used in each ICU

Bundle element	Glasgow Royal Infirmary	Stirling Royal Infirmary
How daily bundle delivery of care was assessed	VAP bundle section on daily goals sheet. Filled in by doctors on ward round. Sheets collected, sampled once a week, the day varied,	Daily charge nurse evaluation including chart review, observation and discussion with the bedside nurse. Recorded on a standard form.
Sedation to be reviewed and, if appropriate, stopped each day	Time for stopping sedation recorded on daily goals sheet, or documented reason for not doing so.	Evidence that sedative infusions had been stopped or documented reason for not stopping sedation.
All patients will be assessed for weaning and extubation each day	Written record on daily goals sheet of a target to reduce ventilator support to by end of day or a documented reason why weaning of ventilation was not appropriate.	Evidence of a plan to reduce ventilatory support or that ventilator support had already been reduced or a documented clinical contraindication such as respiratory distress or deteriorating respiratory function.
Avoid the supine position, aiming to have the patient at least 30 degrees head up	Record on daily goals sheet denoting required nursing position or a clinical reason to avoid the head up position. 30° angles were illustrated at every bedspace.	Evidence that the patient was being nursed in at least a 30° head up position or a documented clinical contraindication. 30° and 45° angles were illustrated at every bedspace and the angle assessed visually.
Use chlorhexidine as part of daily mouth care	Record that prescription and use of chlorhexidine antiseptics as part of daily mouth care had been written and given.	Evidence of chlorhexidine antiseptics as part of daily mouth care. Liquid "Corsodyl" mouthwash was administered with an absorbent sponge to oral cavity and teeth during oral hygiene.

Table 1 Legend: Operational definitions used in each ICU to assess whether or not individual bundle elements were delivered.

Glasgow Royal Infirmary VAP Prevention Bundle Reliability (%) and VAP rate per 1000 ventilator days

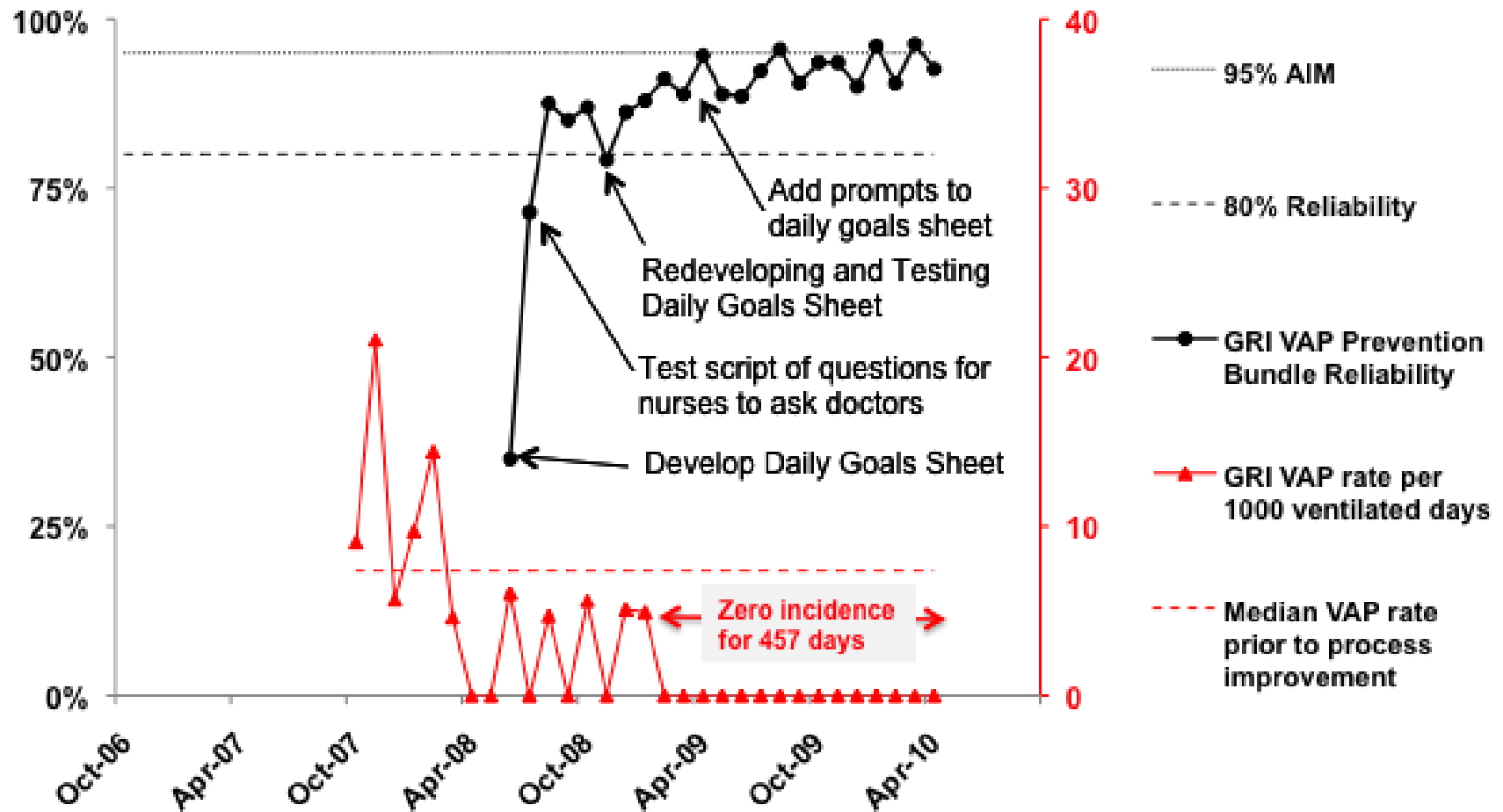


Figure 2 Legend: Run chart of monthly VAP rate per 1000 ventilated days (primary y-axis) and VAP prevention bundle adherence (secondary y-axis) in Glasgow Royal Infirmary ICU

Glasgow Royal Infirmary VAP Prevention Bundle Reliability (%) and VAP rate per 1000 ventilator days

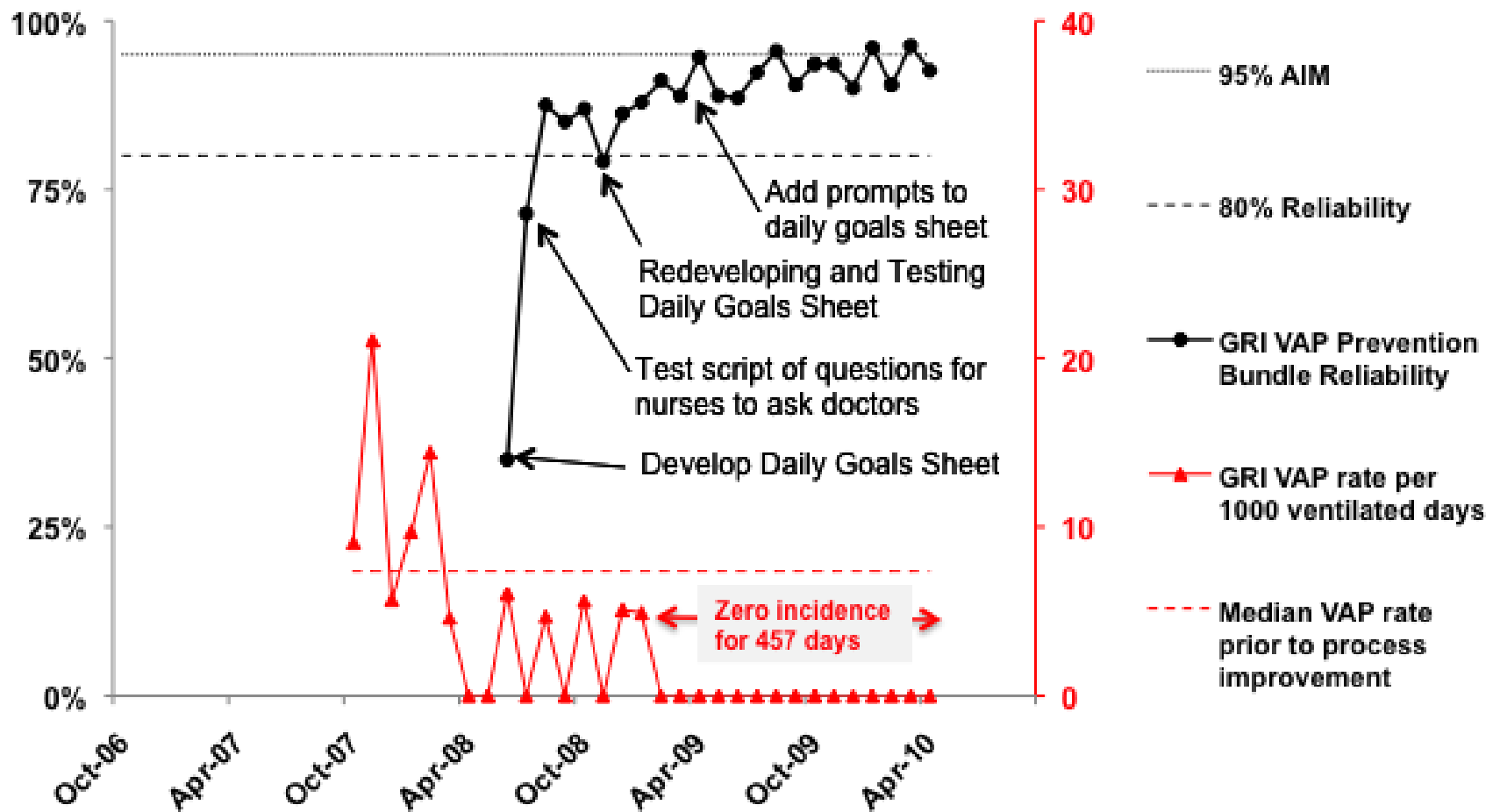


Figure 3 Legend: Run chart of monthly VAP rate per 1000 ventilated days (primary y-axis) and VAP prevention bundle adherence (secondary y-axis) in Glasgow Royal Infirmary ICU