Utilization of rule-based provider documentation to improve accuracy of data abstraction

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Background

- Our data indicated we were an outlier in the post-operative complication rate of arrhythmias.
- Analysis showed a need for improved documentation to determine the indication for the use of temporary pacing, leading to fewer instances of coding the complication when it did not clinically meet the definition.

Practice Change

- The clinical champion and surgeon began reviewing the patients with an identified arrhythmia complication to distinguish when pacing was used solely for augmenting cardiac output.
- To replace this labor-intensive process, a template was created for use in the provider progress note, based on the Pediatric Critical Care Consortium (PC4) definition for arrhythmia requiring therapy.
- The text is automatically included in the daily progress note if the patient has temporary external pacing wires, starting with whether the wires are currently being used:

Temporary external pacing wires are currently [being used/not being used]

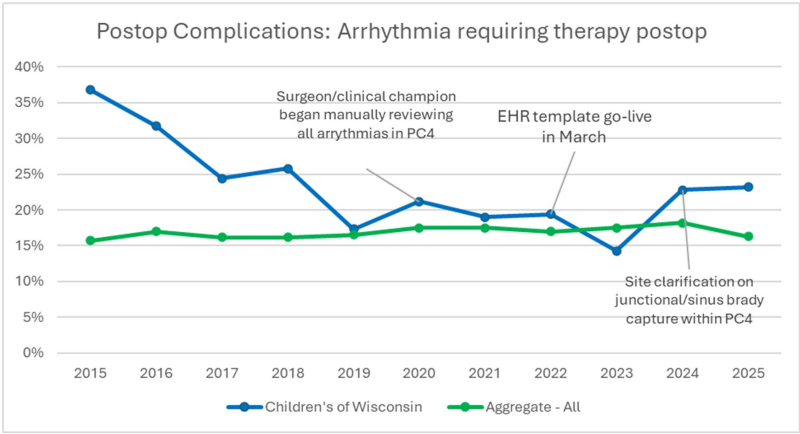
- If the writer selects that the wires are being used, they will then be asked to document the underlying rhythm, mode of pacing, and indication for use of the pacer:

Temporary external pacing wires are currently being used. Underlying rhythm requiring pacing is [Underlying Rhythym]. Current pacing mode is [Pacing Mode] in order to [Indication for pacing].

Pacing Mode	Indication for pacing	Underlying Rhythym
AAI	augment cardiac output	normal sinus
DDD	suppress abnormal rhythm	sinus/junctional rhythm that is slower than desired for clinical scenario
DVI	back-up in case of loss of normal rhythm	pathologic sinus or junctional bradycardia
VVI	***	complete heart block
AOO		second degree heart block
DOO		atrial tachycardia/supraventricular tachycardia
***		ventricular tachycardia
		***

Evaluation of Outcomes

- With the use of the templated text, the clinical indication for external pacing can be distinguished easily and accurately, without the need for time-consuming additional review.
- Shared understanding of the definition promotes a higher trust in the data integrity.



Conclusion

Data clinicians are highly skilled and trained professionals, but they are not always able to discern some nuances from documentation. This leads to extra time spent in secondary reviews and discussions with clinical champions and others familiar with the patient's care and possibly mistrust of the data gathered. The use of templated text within an already-established workflow and tool within the EHR provides necessary clarification with little burden for the bedside providers.