

Flux Notes™

Low burden and incentivized collection of high-quality treatment data



Flux Notes™ Objectives

- **Embrace clinician-preferred narrative approach to documentation**
- **Significantly improve the capture of structured clinical treatment data**
- **Highlight critical missing structured data**
- **Lower clinician burden and incentivize clinicians**
- **Open Source to leverage community and facilitate transition**
- **Success: Demonstrate low burden and incentivized collection of high-quality treatment data at the point of care**

Clinician Burden Too High

Mayo Clinic looked at several months of 2014 survey data from 6,560 U.S. physicians

- “44% of physicians were dissatisfied with them [EHRs]”
- “Nearly 63% of doctors believed that EHRs made their jobs less efficient”
- “Nearly half of doctors said that they spent an unreasonable amount of time on clerical tasks related to patient care.”¹

EHR: Electronic Health Record System

1 – Mayo Clinic Proceedings, “Relationship Between Clerical Burden and Characteristics of the Electronic Environment With Physician Burnout and Professional Satisfaction”, Tait D. Shanafelt, MD et al., July 2016, Volume 91, Issue 7, pp 836-848, [http://www.mayoclinicproceedings.org/article/S0025-6196\(16\)30215-4/abstract](http://www.mayoclinicproceedings.org/article/S0025-6196(16)30215-4/abstract)

Flux Notes™

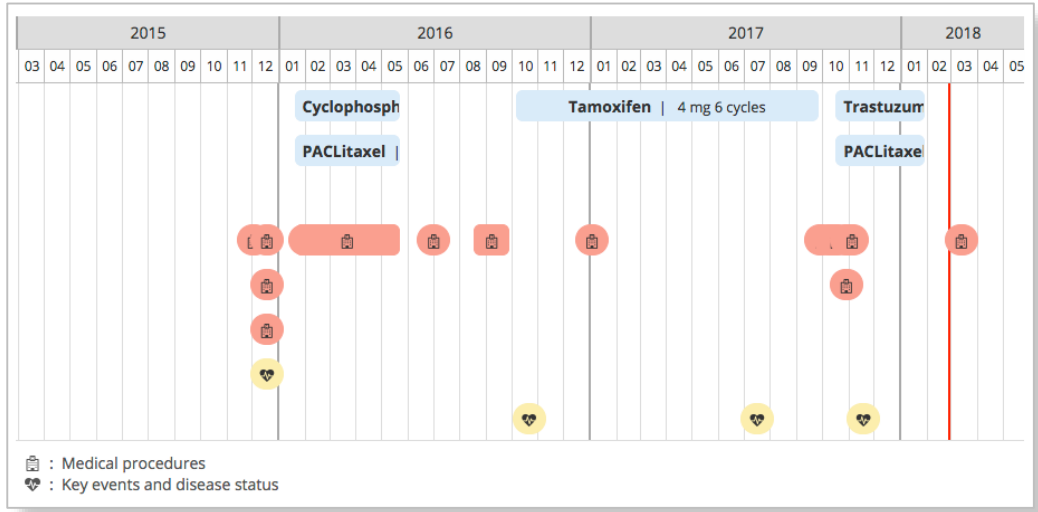
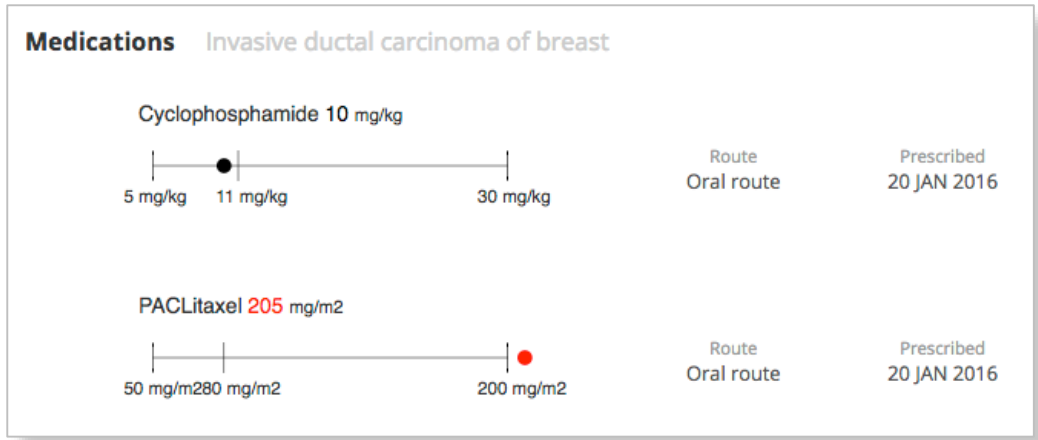
Narrative-based Capture of Structured Treatment Data

- **Semi-structured phrases within overall narrative clinical notes**
- **Tagging inspired by social media. Phrases prefixed with:**
 - @ retrieve data from the patient's health record and insert into the clinical note
 - # update data in the patient's health record from the clinical note
- **Method continues to evolve**
 - **More flexible**
 - For example, require fewer hash tags and even more flexibility in word ordering
 - **More assistive**
 - For example, provide prompts of missing information immediately without stopping clinician
 - **Learns**
 - For example, user edits narrative to resolve missing information and system learns the pattern
 - **Move more capture to during encounter as burden lowers**
 - For example, clinician can talk to patient and "Alexa"-like assistant is capturing key phrases

Flux Notes™

Lower Clinician Burden

- Visualize the right information at the right time in the right format based on structured data
- Auto-generation of manually maintained content
- Context-sensitive insertion of existing data
- Reduce duplicate entry of data into EHR forms



Flux Notes™ Demonstration



Follow up

To download a copy of this presentation, visit:

<https://health.mitre.org/himss18>



Data Interoperability to
Reduce Clinician Burden

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