

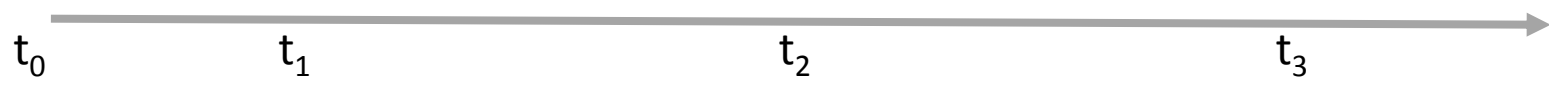
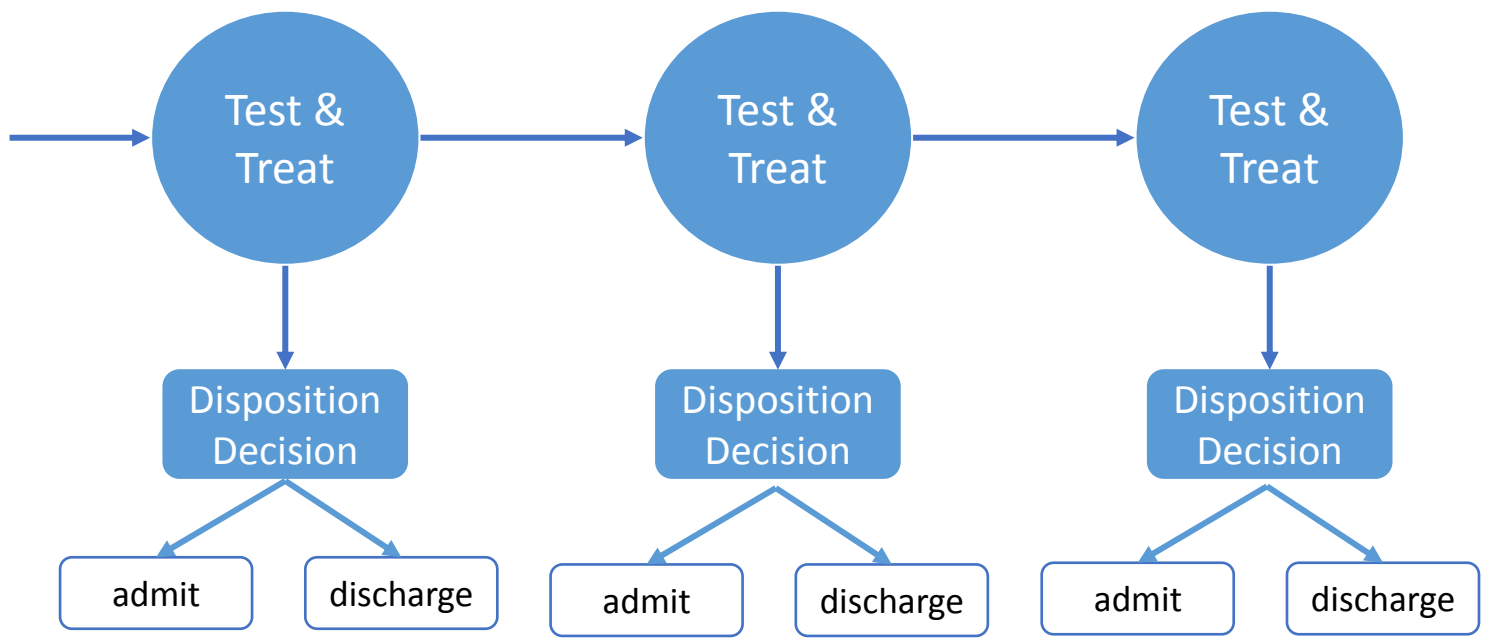
Predictive Modeling and Patient Flow at C.S Mott Children's Hospital

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Predictive Modeling



Predictive Modeling

Background:

- Emergency Department visits are meant to take *less than 6 hours*
- Difficult to predict who will take longer
- Readmissions and inappropriate admissions

Objective:

- Predict disposition decision (*admit or discharge*) using administrative and clinical ED data

Implications

- Earlier mobilization of resources
- Improve patient outcomes

Predictive Modeling: Results

		NN Disposition		
		discharge	admit	
ED Dispo.	discharge	83%	17%	164
	admit	21%	79%	77
		152	89	

NN:
81.74%
accuracy

		SVM Disposition		
		discharge	admit	
ED Dispo.	discharge	91%	9%	164
	admit	47%	53%	77
		186	55	

SVM:
82.32%
accuracy

Patient Flow

Background

- Hospital processes complex
- Difficult to understand for patients and families and often frustrating

Objective

- Build an interactive flow process map to educate users on complex hospital processes

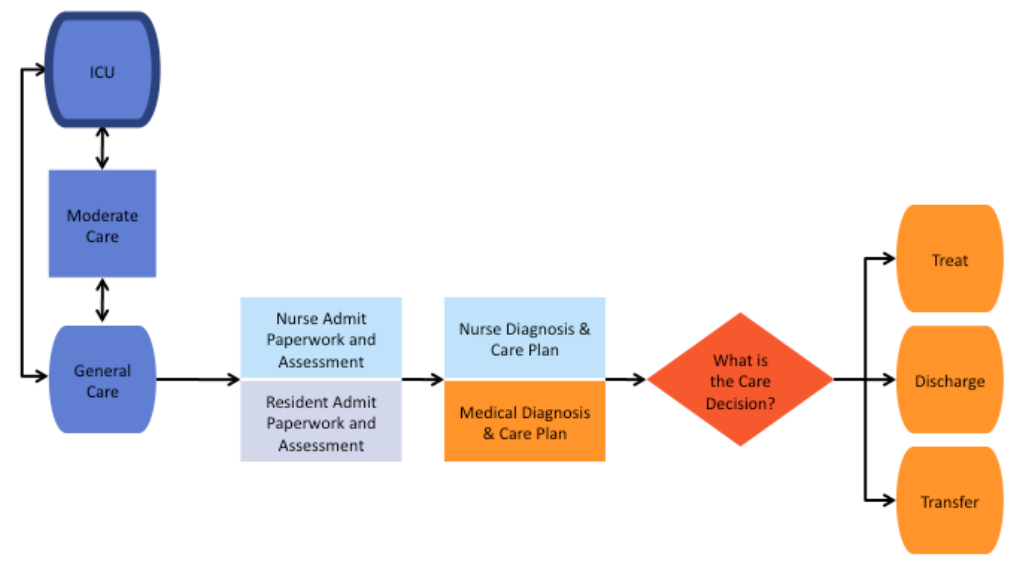
Implications.

- Patient satisfaction
- Patients are proactive in their care

Result

Specify what is decided that the patient needs.

Treat Discharge Transfer



Reset Back Flowchart Key

