

## What is Acute Care Surgery?

Provides care for:

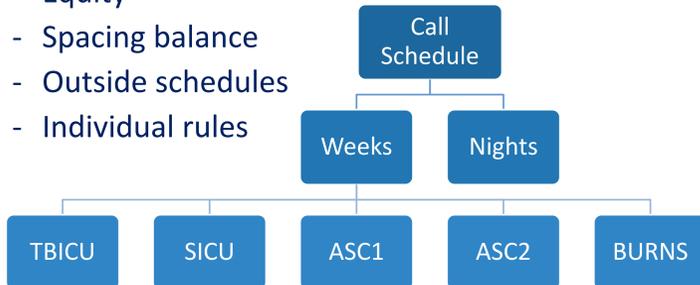
- critically ill/injured patients due to trauma/burn
- patients who need emergent medical attention

## What is their scheduling challenge?

Objective: 5 units to be always covered by 15 attendings.

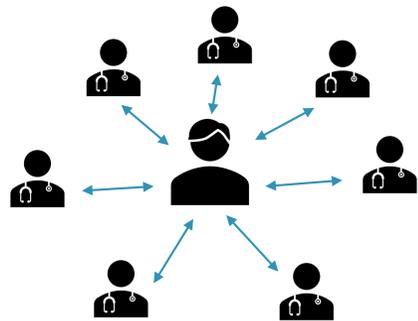
The schedule must consider:

- Personal/professional time-off requests
- Equity
- Spacing balance
- Outside schedules
- Individual rules



## How do they schedule currently?

The Division Chief creates the schedule by hand.



**HIGH TIME AND EFFORT  
LOW SATISFACTION**

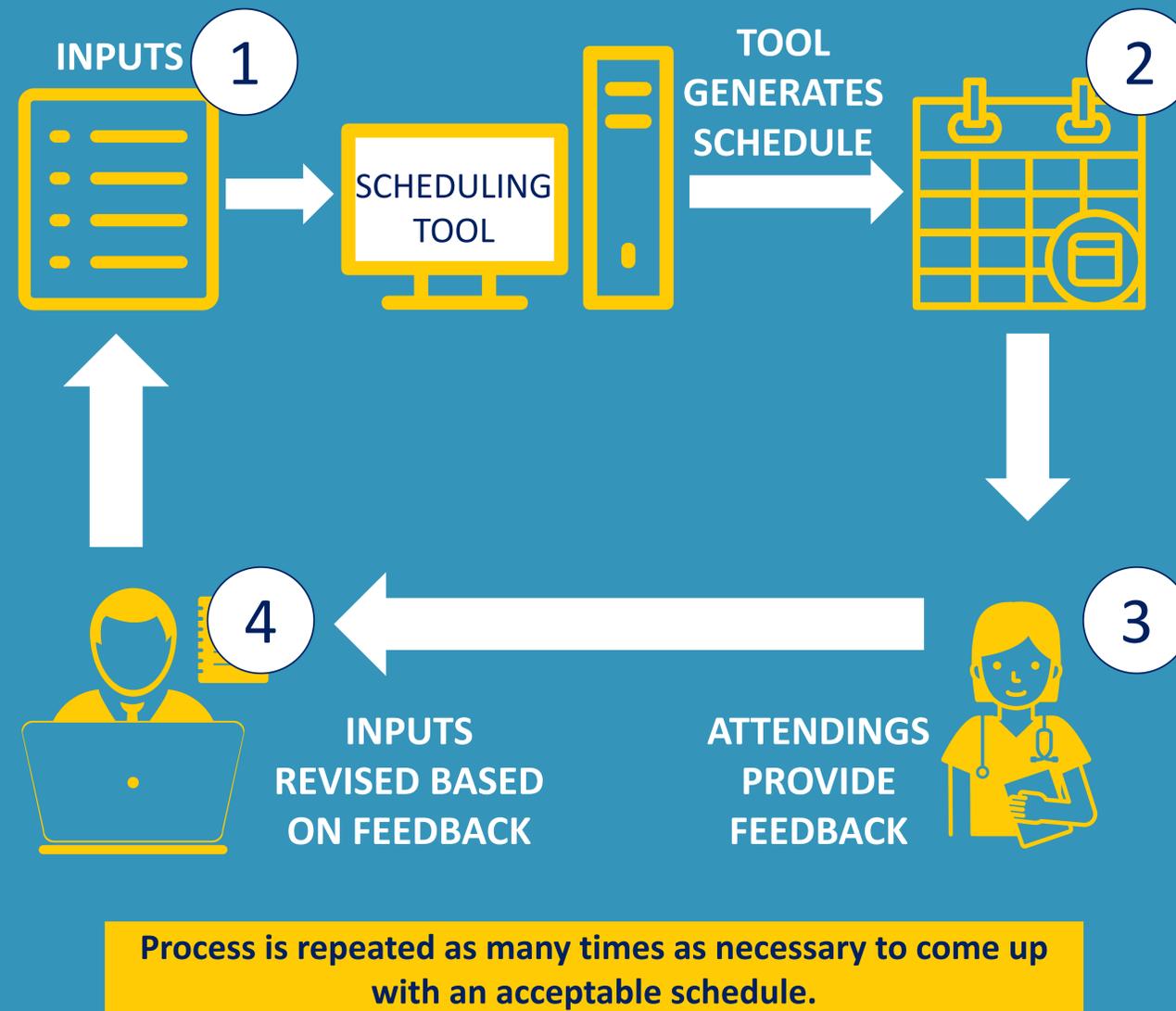
## How can we help?

Our team has created a tool that automates and optimizes the scheduling process! The tool...

- Applies a mathematical model to enforce scheduling rules and identify the best possible schedule based on chosen criteria
- Generates high quality schedules within seconds
- Reduces the time and work involved with revising the schedule

# Constructing Balanced Call Schedules for an Acute Care Surgery Practice

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## How does the tool work?

1. Inputs – Gather inputs such as attending's time-off requests and target number of assignments on each unit
2. Tool generates schedule – Users just need to hit "run"!
3. Attendings provide feedback
4. Inputs revised based on feedback

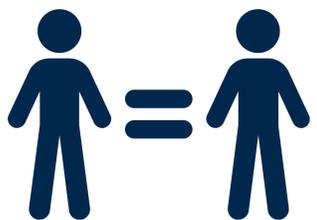
## What are the short-term goals?

- Building many schedules in a short amount of time
- Obtaining rapid feedback and getting a better understanding of trade-offs within schedules.
- Increasing usability of the tool
- Reducing amount of manual work time
- Increasing clarity on schedule preferences



## What are the long-term goals?

- Removing the perception of bias in scheduling, ensuring equity
- Equity spanning years with holiday assignments



## Acknowledgements