Maximizing OR Availability for Trauma Patients

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Project Description

I wanted to address the long operating room wait times for patients scheduled for urgent, not immediately life-threatening surgical conditions. I believed I could do this by maximizing the utilization of elective ambulatory surgery space.

Problem Statement:

There is insufficient main operating room time and space to address the surgical needs of our patient population. By maximizing ambulatory surgery center utilization, we will provide faster patient care and improve outcomes.

Discovery:

1. I developed an initial business model and performed 100 interviews.
2. I was surprised that the ambulatory surgery center had a significantly lower percent utilization than the main OR.
3. Most surgeons reported that many urgent cases did not require main operating room level care.
4. The main reported reason for under-utilization of the ambulatory surgery center was inability to book afternoon cases secondary to 5pm “hard closing time”.
5. Based on my interviews and research I focused my attention on increasing ambulatory surgery center throughput by increasing its operating hours.

Location	Service	Aug 2018	Sept 2018	Oct 2018	Nov 2018	Dec 2018
		Percent Utilization*				
Main OR	Orthopedic Hand/Upper Extremity Surgery	142.5	188.8	76.6	103.0	151.8
Location	**Service**	**Aug 2018**	**Sept 2018**	**Oct 2018**	**Nov 2018**	**Dec 2018**
		Percent Utilization*				
Ambulatory OR	Orthopedic Hand/Upper Extremity Surgery	92.3	100.4	96.0	77.4	82.8

* Percentage of allotted block time

Avg Wait Time (Hrs)	DOS 2018 Qtr1	Qtr2	Qtr3	Qtr4	2019 Qtr1	Qtr2
Category						
EMERGENT	1.4	1.4	1.5	1.4	1.3	1.2
URGENT 1	8.3	9.1	9.2	10.1	10.2	9.7
URGENT 2	11.5	11.6	16.2	21.4	18.2	18.4
URGENT 3	12.3	17.8	18.6	33.1	33.2	41.0

Goal:

Maximize OR space and decrease OR backlog for adult upper extremity trauma patients.

Outcome-oriented Objective:

Make the ambulatory surgery center accessible for urgent, main hospital inpatient cases and increase run time by one hour every day in order to decrease surgical wait times.

Results

June 2019

Approval for urgent casts to be performed in Ambulatory Surgery Center

July 2019

Approval for increase Ambulatory Surgery Center operating time by 1 hour each day

September 2019

Anticipated outcome: Reaching the goal of decreasing average wait time by 15%

Lessons Learned

- Still awaiting results.
- Separate spaces within the same institution may have different goals despite same mission of patient care (i.e. Main/Ambulatory OR).
  - Aligning interests for each can be challenging.
- Change in large institutions can be very slow.
- Be prepared to pivot (My goal was to improve OR access early on, but I had to change strategy/CHIP project several times).

Next Steps:

- This project is not finished. Other operating room space can be utilized as well Children’s Surgery Center, Procedure Rooms).
- The next steps include to work to increasing the utilization of these operating rooms to help decompress the main OR.

Mission Model Canvas

Key Partners
- Orthopedic UE Trauma Surgeons
- UCD Medical Center
- UCD Same Day Surgery Center

Key Activities
- Allow urgent, non-life threatening surgical cases to be performed at the ambulatory surgery center
- Expand ambulatory surgery center operating time by 1 hour each day

Key Resources
- Interested providers from all departments
- Variety of potential operating spaces

Value Propositions
- Increase usage of non-main operating room surgical space in order to increase main operating room surgical availability

Buy-in & Support
- Demonstrate utility/gain support from operating room operations management
- Show opportunities for decreasing main operating room back-log, decreasing under-utilization of SDSC
- Demonstrate how will help maintain accreditation

Deployment
- Discussions with operating room management
- Discussion with providers, nurses, residents re: case scheduling

Beneficiaries
- UE patients
- UCD Health System (Accreditation committee, Shareholders)
- Health care providers (Hand/UE Surgeons, Nurses, MA's, Radiology techs, Cast techs)
- Surgical Trainees (Residents/Fellows)

Mission Budget/Cost
- Use of existing space
- Estimated cost: $0

Mission Achievement/Impact Factors
- Allow for 24/7 UE urgent coverage
- Decrease potential need for patient transfers
- Cost effective/efficient (lessen main hospital burden)