Emergency Department Cost Savings for System Sustainability

Presented at the ELAM® leaders Forum

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Background

- ED patient volumes continue to rise despite increased availability of urgent cares, retail clinics and telehealth.
- UC Medical Center ED is southwest Ohio's regional Level I trauma and tertiary care center and is the regional safety net hospital seeing 75,000 patients annually.
- Fiduciary responsibility is needed in each department to maintain long term system sustainability.
- ED chosen as a model to determine if significant cost savings could be obtained despite barriers that include inability to choose patient population, very few expensive supplies, and practitioners dedicated to indigent care.

GOALS

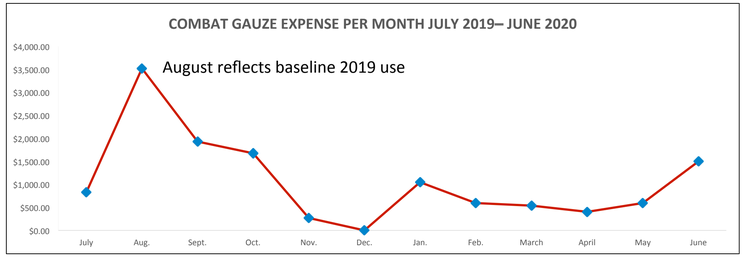
- Maximize savings to UC Health, without compromising quality or safety, by cost analysis, utilization review, and education regarding medications and supplies used.
- Target 5% reduction in supply budget: $100,000 cost savings.

Methods

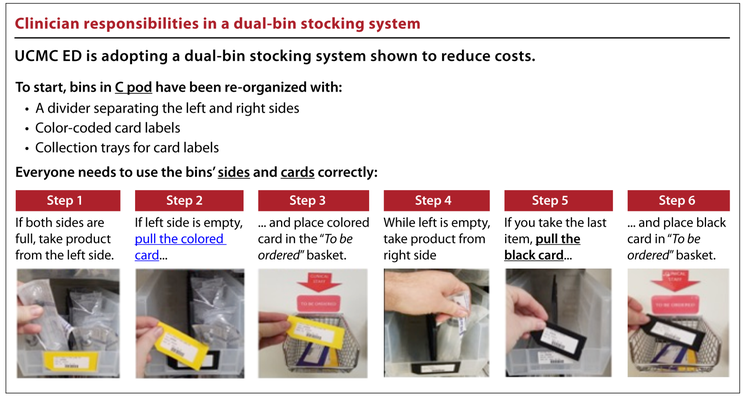
1. Survey attending physicians, residents, APPs and nursing staff about cost savings, determine interest, best means of education, solicit cost savings ideas, and to obtain provider engagement.
2. Identify the Top 10 most expensive and Top 10 most frequently used supplies and medications.
3. Combat gauze targeted due to $30k annual expenditure.
4. Kanban dual-bin system implementation.
5. Invasive line kits utilization.
6. Charge capture for supplies taken by off-service providers.
7. Cost education on medications used in atrial fibrillation, refractory ventricular fibrillation, vasopressin in sepsis and anticoagulation reversal.
8. Evaluate process of purchasing crutches and splints (DME).
9. Monitoring equipment accessories targeted with annual $52k expenditure

Outcomes

- Survey responses: 82% faculty, 37% residents, 38% APPs and 21% nurses.
- 100% would choose cheaper option if safety and quality unaffected.
- Combat gauze: Trauma collaboration with education regarding appropriate indications and use, relocation with restricted access and limited supply, red price stickers, and utilization review updates resulted in $17k savings.



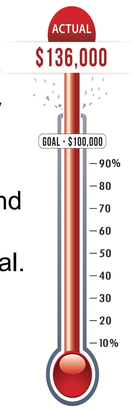
- Kanban dual-bin system projected savings of $32k with decreased waste and improved JCAHO compliance to eliminate expired items.



- Central and arterial line kits opened only after patient assessment and availability of individually packaged sterile guide wires.
- DME supply process projected savings: $30k
- Anticipated decrease by 1/3 of monitoring equipment accessories waste. Projected savings $15k.

Discussion

- Tracking progress confounded by central finance changes.
- Top 10 items maximally leveraged.
- Efforts focused on increased provider engagement by combining clinical information with cost awareness, decreasing combat gauze use, inventory process efficiencies, eliminating waste, and shifting costs to end users rather than negotiating specific supply costs.
- Pharmacy savings not tracked or counted towards goal.
- COVID-19 pandemic affected ED patient volumes, especially in April, and are reflected in expenditures.
- Exceeded target goal with $136k savings.



Adjusted Supply Expense compared to Budget	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	YTD
	-$30,365	-$363	$30,676	$27,839	$21,276	-$12,826	$9,066	-$4,419	$9,526	$65,011	$16,622	$4,363	$136,406

Next Steps

- Follow-up survey to guide future efforts
- Assess other areas of high-impact cost savings such as ultrasound probe and machine breakage and charge capture.

Summary

The COVID-19 pandemic highlighted the precarious financial state of many academic health institutions, underscoring the need to spend less and save more in order to ensure system sustainability.

This multi-disciplinary collaboration was successful in exceeding the $100,000 savings goal despite limited options for cost reduction. If other departments did similar assessments, especially surgical specialties that use use expensive equipment and devices, significant cost savings could be realized.

Acknowledgements

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