TRANSITION FROM IPATROPIUM/ALBUTEROL INHALER TO NEBULIZER ON QUALITY AND COST SAVINGS IN VENTILATED PATIENTS

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CURRENT STATE

Ipratropium/albuterol delivered via MDI (Combivent) into the ventilator circuit

PROBLEMS/CONCERNS:

- Medication delivery dependent on technique
- Inefficient use of RT time
- Added pressure can disrupt ventilator settings
- High cost / high waste medication devices

FINANCIAL IMPACT OF CURRENT STATE

Item	Financial Impact
Current Combivent Price	$191
"Soon to be" Combivent price	$230
SJPHS FY12 utilization (MDIs)	$3,250
Current Annual Expense	$620,750
"Soon to be" Annual Expense	$747,500

AERONEB SOLO

- Single patient use nebulizer
- For use up to 28 days in intermittent mode
- Adds no pressure to the ventilator circuit - does not trigger alarms
- Complete dose delivery
- Eliminates medication waste and high cost devices

ANTICIPATED COSTS OF AERONEB/DUONEB

Item	Cost
Control Module (Aeroneb Pro) (one time up front expense)	$650 per unit
Nebulizer (Aeroneb Solo) (anticipate 1 per patient)	$42 each
Ipratropium/albuterol (Duoneb) (anticipate 20 doses per patient)	$0.20 per dose

ANTICIPATED FINANCIAL IMPACT (SJPHS)

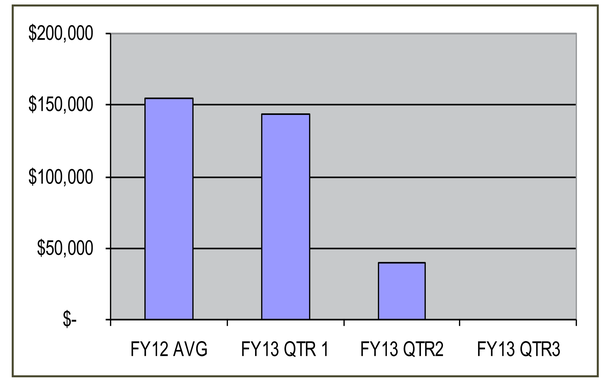
Item	Financial Impact
Cost/patient with Combivent	$191
Cost/patient with Aeroneb/Duoneb	$46
Savings per patient	$145
Annual # of patients (FY12)	$3,250
Anticipated annual savings	~$420,000

INITIAL EXPERIENCE (RTs)

- Respiratory Therapists report time savings
- No additional pressure is introduced:
  - Ventilator checks can be performed during administration
  - No need to adjust alarms during administration

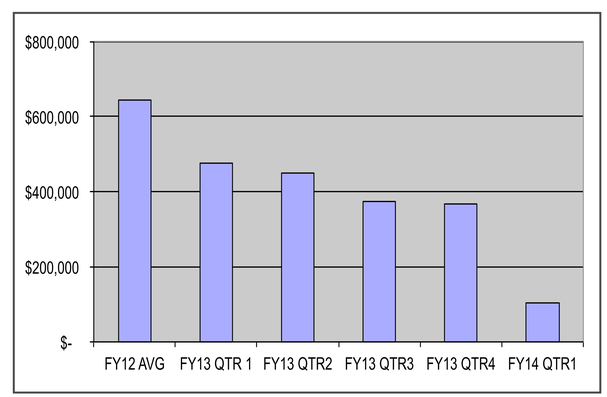
SJPHS COMBIVENT PURCHASES

(BY CALENDAR QUARTER)



ASCENSION HEALTH COMBIVENT PURCHASES

(BY CALENDAR QUARTER)



POSSIBLE FINANCIAL IMPACT

SYSTEM-WIDE IMPLEMENTATION

Item	Financial Impact
Estimated # of patients	~12,000
Estimated savings per patient	$145
At 100 % conversion	$1,740,000
At 75 % conversion	$1,305,000
At 50 % conversion	$870,000

Note: Proportion of Ascesnion Health Combivent use that is for ventilated patients is not known. It was 100% at SJPHS.

CONCLUSIONS

- Significant cost savings associated with the practice change
- Respiratory staff satisfaction
- Potential system-wide (105 hospitals) implementation can lead to annual savings from $870,000 - $1,740,000
- Multidisciplinary team initiated process change can be implemented at other hospitals.