OXYGEN DELIVERY DEVICE EDUCATION FOR ACUTE CARE NURSES

Kelsey Eidem, RN, BSN
8D / VA Portland Healthcare system

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- *The contents of this presentation do not represent the views of the U.S. Department of Veterans Affairs or the United States Government*
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BACKGROUND

- 8D Provides care for patients with various respiratory diseases requiring oxygen delivery devices
- Nurses have noted that specifically the Venturi mask is difficult to utilize
- A needs assessment was conducted on 8D in which 25 of 37 (67.5%) nurses responded
- Oxygen is considered a medication therefore it has patient safety risks and financial implications

PICO(T) QUESTION

In acute care nursing (P)

do educational in-services in addition to respiratory therapy support (I)

compared to respiratory therapy support alone (C),

increase nurses' competency and patient safety when delivering care to patients requiring the Venturi oxygen mask (O)?

Evidence Retrieved

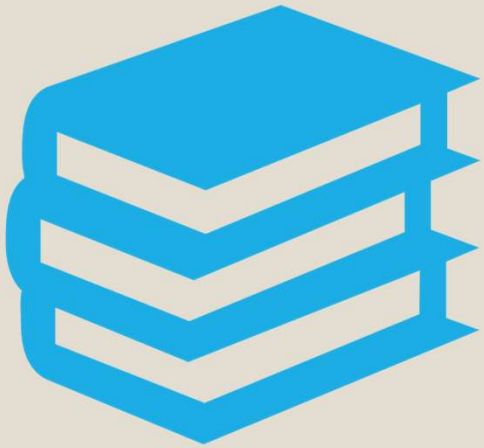
Research Evidence				
Non-experimental	Quasi-experimental	Experimental	Systematic Reviews	Meta-analysis/ Meta-synthesis
0	3 (Good)	1 (Good; high)	1	1

Non-Research Evidence		
Expert Opinion	Organizational (QI/financial data)	Clinical Practice Guidelines
2 (Good)	Unit Needs Assessment	0

- Databases searched: PubMed, CINAHL
- Key words used: nurse confidence, nurse education, nurse competency, oxygen delivery, respiratory education, hospital nurse, and simulation
- Limits used (e.g., years, human, age): Full article available, English text, and 2006-2021

Evidence Summary

The literature was searched for articles on educational in-services related to respiratory care and oxygen delivery. There was limited evidence on these topics specifically. Most of the literature reviewed references in-services for various other skills for inpatient nursing care. The evidence in the literature suggests that regular educational in-services are effective in skill development and patient safety.



ACTION PLAN

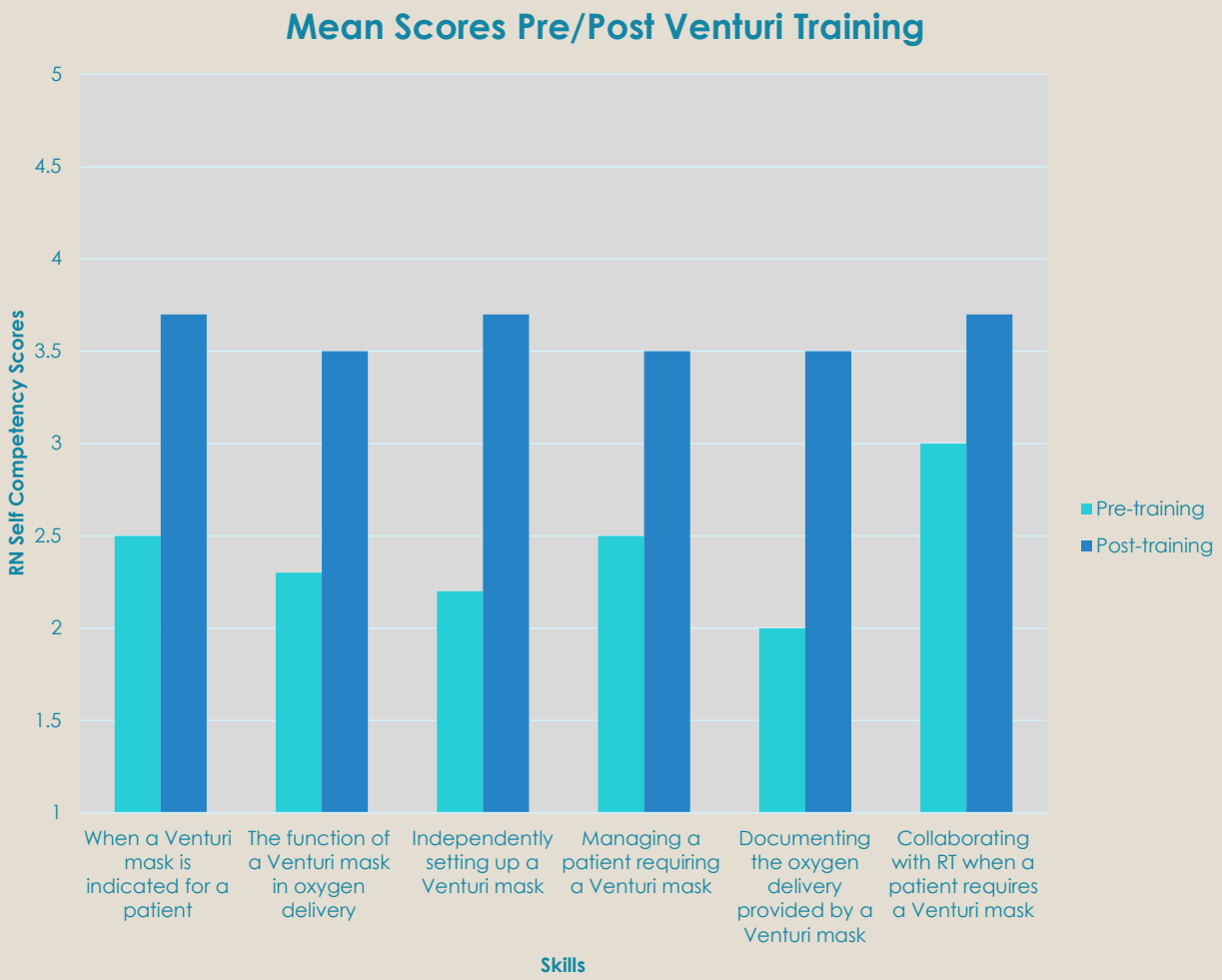
Venturi Mask Educational In-Services	Model	Specific metrics
• 8D a 24-bed acute care unit caring for majority medical patients • 30-minute educational session on the Venturi mask including hands on practice • Four sessions in the second week of April (2-day shift and 2-night shift)	• Plan, Do, Study, Act	• Number of nurses who attend • Pre-Post assessment of six Venturi competencies

PROJECT METRICS

	Metric	Operational Definition	Source of Data	Data Collection Frequency	Data Aggregation (frequency & level of analysis – unit, pt. pop)	Feedback Plan (to what stakeholders, & when)
PROCESS	Nurses attending education sessions	Nurses who were present for the entire session	Tally at educational in-services	Once at each in-service	TBD	Nurse managers, CNL, and RT. TBD
OUTCOME	Venturi competencies and skills assessment	Skills related to utilizing a Venturi and caring for patients who require it	Pre-post self-assessment scores	Quarterly	Quarterly, local unit level	Nurse managers, CNL, and RT. Quarterly

RESULTS

- Sample size
  n = 6



Return on Investment

Cost of Change		Benefit of Change		
Supplies:	$		Baseline	Post
		One-time reduction (supplies, labor, equipment)	$	$
		Ongoing reductions (supplies)	$ TBD	$ 0.24/patient day
Equipment:	$	Increased revenue (e.g., higher patient volumes, reduced LOS or readmissions)	$	$
Labor costs:	$	Prevention of complications*	$	$
Other costs:	$	Other	$	$
Subtotal	Providing protected time for education	Subtotal	$	$
OVERALL RETURN ON INVESTMENT		**$2803** (((365 days/5-day LOS)x(160 beds))x(0.24)))		

CHALLENGES

Main Challenges

- No available rooms for practice with wall set up
- Difficult for staff to take time away from patient care
- Interruptions
- Changing of the focus of project multiple times

Limitations

- Small sample size
- Missing data

WM(2

IMPLICATIONS FOR PRACTICE

- Positive response from nursing staff was encouraging for future education
- Creating relationships with RT for team-based care
- Promote nurse confidence
- Other units that may benefit from this project: 5D, 6D/6C, 9C and 9D

Slide 12

WM(2 Are you going to give examples of some of the comments during the presentation?
Willett, Meredith (Portland), 5/5/2021

CONCLUSION

- Educational in-services on Venturi masks have the potential to be beneficial to improving nurses' competency and patient safety
- Majority of competency scores pre-post assessment were statistically significant
- More PDSA cycles should be tested to develop best format

QUESTIONS & DISCUSSION

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