1

Objectives

Upon completing this course, the learner should understand:

- the necessity of documentation, chart review and handoff communication
- how employee and leadership turnover affect weaning
- how excessive agency use affects weaning
- the importance of monitoring patient outcomes during staffing shortages

2

Evidence-Based Practice

Evidence-based practice (EBP) is the process of applying current, best evidence (external and internal scientific evidence), patient perspective, and clinical expertise to make decisions about the care of the individuals you treat.

https://www.asha.org/research/ebp/evidence-based-practice-process/

3

TDP Implementation

Therapist-driven protocols have been shown to decrease the duration of mechanical ventilation, reduce cost, length of stay, and improve the rate of weaning when compared with physician-directed weaning.

https://pubmed.ncbi.nlm.nih.gov/17368162/

Delivering the best possible care to patients on mechanical ventilation means getting those patients off mechanical ventilation as soon as it is safely possible; the best way to make sure that happens is to follow protocols developed specifically for this area of practice.

https://www.aarc.org/nn19-ventilator-weaning-protocols/

4

Weaning from Mechanical Ventilator in a Long-term Acute Care Hospital: A Retrospective Analysis

51 patients on mechanical ventilation before initiation of protocol-based ventilator weaning formed the control group. 111 patients on mechanical ventilation after implementation of the protocol formed the study group. Time to wean from the mechanical ventilation before the implementation of protocol-driven weaning by RT was 16.76 +/- 18.91 days, while that after the implementation of protocol was 7.67 +/- 6.58 days ($p < 0.0001$).

Mortality proportion in patients after implementation of protocol-based ventilator weaning was 0.21 as compared to 0.37 in the control group ($p=0.0153$). The daily cost of patient care for the LTAC while on mechanical ventilation was $2200/day per patient while it was $ 1400/day per patient while not on mechanical ventilation leading to significant cost savings.

Protocol-driven liberation from mechanical ventilation can significantly decrease the duration of a mechanical ventilator, leading to decreased mortality and cost savings.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7774095/

5

Large scale implementation of ventilator weaning TDPs

A large-scale implementation of a respiratory-therapist-driven protocol (TDP) included 100 hospitals. 4 standardized protocols were introduced, and the use of one of the four was strongly encouraged throughout the organization.

During a 12-mo period, we monitored each facility's wean rates, and which protocols were in use by said facilities. The largest barrier to protocol implementation was lack of physician support. The largest barrier to compliance with protocols, was lack of staffing/employee turnover.

For those facilities with physician support, protocol implementation, and high compliance rates, it was determined the wean rates were higher by 6 to 10%.

Decreased ventilator days = decreased trach days = decreased incidental dislodgments

6

Understaffing increases risk

Understaffing respiratory care services places patients at risk for unsafe incidents, missed treatments, and delays in medication delivery, as well as increases the liability risk for hospitals.

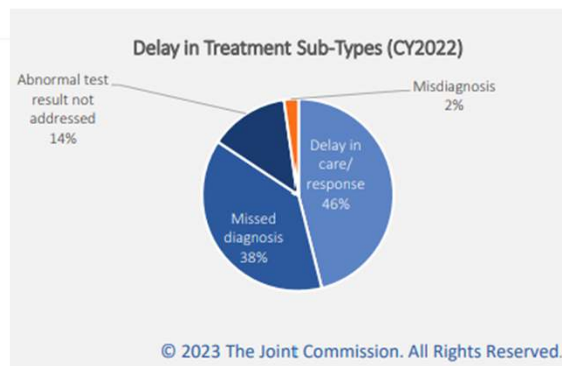
On the other hand, appropriate staffing levels help assure that a consistent standard of respiratory care is provided throughout the hospital. Adequate staffing levels decrease the potential for error and harm by providing respiratory therapists adequate time to perform required functions and can contribute to greater levels of patient satisfaction.

Per the AARC, Patient harm directly related to inadequate staffing must be reported to the appropriate state and Federal regulatory agencies.

https://www.aarc.org/wp-content/uploads/2013/07/productivity_and_staffing.pdf

7

TJC Sentinel Event Review – CY2022



https://www.jointcommission.org/-/media/tjc/documents/resources/patient-safety-topics/sentinel-event/03162023_sentinel-event-_annual-review_final-(002).pdf

8

Leading cause for Sentinel events in 2022

Failures in
- Communication
- Teamwork
- Consistently following policies

https://www.jointcommission.org/-/media/tjc/documents/resources/patient-safety-topics/sentinel-event/03162023_sentinel-event-_annual-review_final-(002).pdf

9

Documentation

THE NECESSITY OF DOCUMENTATION, CHART REVIEW, AND HANDOFF COMMUNICATION

10

Documentation: Purpose

Main reasons to ensure proper documentation

- Minimizes exposure to risk management
- Communication with other medical personnel
- Validation of PQRS Measures and CMS Hospital Quality Measures
- Aids in reimbursement
- May affect Staffing

- https://www.medicaltranscriptionservicecompany.com/blog/what-are-common-errors-in-medical-documentation/

11

Documentation: Common Errors

Examples:

- Transcription Errors
- Incorrect Documentation
- Inaccurate documentation
- Insufficient documentation

12

Reasons for Errors

- Use of a Brain Sheet to take notes
- Unable to document in real-time
- Intent to chart later – missing documentation
- Copying information from “the brains”to incorrect patient’s medical record

13

Case #1 Documentation/Transcription Error

- Staff Charted “Patient capped 48 hours tolerating well”
- Physician arrived and ordered patient to be decannulated
- RT decannulated the patient per physician's orders, without question
- Patient went into respiratory failure, and trach had to be reinserted

- Investigation noted:
  - **Transcription Error/Incorrect documentation:** RT was charting on brains and carried information over on Incorrect patient
  - Two patients in close proximity with capping trials; very similar in care/New RT assigned to both
  - Physician did not “see” patient, and ordered based on documentation of RT

14

Case #2 Handoff Communication/Inadequate Documentation

You are scheduled three 12-hour shifts in a row
- You have the same assignment all three days
- You have a patient off the vent for the first 2 of 3 days
- You also have a patient you decannulated on day one, and they did very well on day two (no issues)
- Your 3rd day you arrive onsite, to find a written shift report for handoff communication

- Day 3 Arrival
  - Written report reveals nothing unusual, everything appears status quo
  - You begin rounds, only to find your Aerosol patient is back on the vent and your decannulated patient has a trach
  - You review the written documentation/changes in condition were not noted

15

Chart Review

Chart Checks
- Missed orders could be carried over into yours
- Walking rounds

Documentation
- Review notes from previous shift if written report was given
- Or if change in patient condition presents

Handoff Communication
- Provide detailed information
- RT to RT
- RT to Physician
- RT to Nursing

16

Continuity of care

Continuity of care is:

- idealized in the patient's experience of a 'continuous caring relationship' with an identified health care professional.
- the delivery of a 'seamless service' through integration, coordination and the sharing of information between different providers.

https://pubmed.ncbi.nlm.nih.gov/17018200/

17

Challenges in Continuity of Care

Rotating Staff
- Full Time
- PRN
- Agency Use
- Inconsistent scheduling

Rotating Physicians
- Physician rounds
- Changing physicians
- Handoff communication

Attrition/Turnover
- Staffing shortages/Increased workloads
- New Employee onboarding
- Frequent changes in staff to patient

18

Attrition & Turnover

HOW EMPLOYEE & LEADERSHIP TURNOVER MAY AFFECT WEANING FROM MECHANICAL VENTILATION

19

Attrition vs. Turnover

Attrition is a gradual voluntary reduction of employees (through resignation and retirement) who are not then replaced. This means that attrition decreases the size of the workforce.
https://www.talentlyft.com/en/resources/what-is-attrition

employee turnover is the number of employees leaving their roles who need replacing.
https://www.brighthr.com/articles/culture-and-performance/staff-turnover/

20

RT ratios improve compliance

A multi-component intervention including: an increase in RT/patient ratio, improved orientation, and the establishment of a core staffing model, was associated with increased respiratory resource utilization and evidence-based respiratory care…
https://rc.rcjournal.com/content/58/3/438

21

No Current Guidelines

Currently, no concrete guidelines exist regarding RT to staffing ratios. A 2006 study, surveying RTs at 30 hospitals ranging in bed size from < 250 to > 500 beds, concluded that increased RT staffing would be necessary if ICUs continued to grow as projected.[27] A recommendation was made that one new RT be hired for every 11.3 beds added to an ICU, in order to maintain appropriate patient care.[27] Our study found that an improved RT staffing ratio of 1:10 (increased from 1:14) was associated with increased utilization of best-evidence practice in the care of mechanically ventilated patients.

https://rc.rcjournal.com/content/58/3/438#:~:text=Our%20study%20found%20that%20an,care%20of%20mechanically%20ventilated%20patients.

22

California Code: Title 22 CA Code of Regs 70405

(e) A registered nurse: patient ratio shall be 1:4 or fewer on all shifts.

(f) Sufficient other licensed nursing personnel who have experience in acute respiratory care nursing shall provide additional support in a total nurse: patient ratio of 1:2 or fewer on each shift.

(g) **Sufficient respiratory care practitioners and/or respiratory care technicians shall provide support for resuscitation and maintenance of the mechanical ventilators in a ratio of 1:4 or fewer on each shift.**

https://regulations.justia.com/states/california/title-22/division-5/chapter-1/article-6/section-70405/#:~:text=(g)%20Sufficient%20respiratory%20care%20practitioners,or%20fewer%20on%20each%20shift.

23

AARC White Paper

When constructing a staffing system, the need for “core staffing” or “minimal staffing” should be determined. This means that some staff is always available to immediately respond to emergency situations such as cardiopulmonary arrest or attendance at high-risk neonatal deliveries. Core-staffing requires consideration and some level of exclusion from being managed through a flex staffing model.

https://www.aarc.org/wp-content/uploads/2013/07/productivity_and_staffing.pdf

24

Large Scale Staffing Model

Study of staffing in 100 hospitals over three year period

- Time Study to determine baseline for care
- Core Staffing model created
- Minimum staffing with ability to flex up or down

- Outcomes
  - Facilities with a ratio of 1 RT per 7 patients/1 RT per 5 vents
  - Incidental dislodgments drastically reduced
  - Respiratory Related Level 3 & 4 incident reduced

25

Staffing ratios

Directly impact:

- Morale
- Performance
- Continuity of care
- Patient outcomes
- Attrition & Turnover

When there is higher demand for services than the number of respiratory therapists scheduled, they prioritize their work, pick up the pace, and do the best they can.
https://rc.rcjournal.com/content/56/11/1864

26

Effects of Leadership Turnover

Frequent Leadership Turnover increases Staff Turnover

Results in increased Agency Use (pool or contract)

Contract vs Pool

serves as a full time employee for 9 to 13 weeks with opportunity to extend

Has time to learn and implement P&Ps and Protocols

Able to provide continuity of care

27

Agency Use

HOW EXCESSIVE AGENCY USE MAY AFFECT PATIENT OUTCOMES

28

Agency Workers are a blessing

Without them, where would you be?
- Short staffed
- License at risk
- Overwhelmed
- Providing sub-optimal care

29

Contingent Providers

Challenges with agency use
- Accountability – Contingent worker vs. Staff
- Skillset appropriate for the environment
- Full Time employees feeling slighted
- Agency workers feeling overloaded
- Hostility in the department

30

Effects on Weaning

PRN Use creates constant change
- Short orientation creates a knowledge gap
- Inability to effectively implement TDPs and P&Ps
- Less patients removed from mechanical ventilation
- Increased risk for adverse outcomes

31

Staffing Shortages

MONITORING PATIENT OUTCOMES DURING STAFFING SHORTAGES

32

The Future of our profession

- 92,474 RTs will leave the profession by 2030
- 27% decline in enrollment (with only 10% of programs at capacity)
- According to an AARC survey in 2021, 70% of RTs surveyed were experiencing burnout

https://www.aarc.org/wp-content/uploads/2021/09/the-state-of-respiratory-therapy.pdf

"It's extremely difficult to balance care and efficiency because we don't have enough therapists to meet the needs of higher acuity services." Education Development Coordinator, Respiratory Care, Ohio

33

Barriers to patient progression

https://www.aarc.org/wp-content/uploads/2021/09/the-state-of-respiratory-therapy.pdf

34

Overworked and under-documented

Short Staffing Results in:
- More patient care per RT
- Less time to provide care
- Less time to document care
- Less care documented

35

Why monitor patient outcomes

Reporting Outcomes:
- Establish a baseline
- Compare to a benchmark
- Compare results to staffing ratios
- Adjust accordingly

36

Why monitor patient outcomes

- Documentation provides a clear picture of the work performed
  - Validates staff and revenue streams
- Frequent turnover creates inconsistent care
  - Wean rates may suffer as a result
- Increased contingent workers (unless contracted) creates inconsistent care
  - Wean rates may suffer as a result
- Monitoring patient outcomes to establish a benchmark
  - may aid in determining adequate patient to staff ratios in the future

37

Questions

38