The incidence of tracheostomy placement with prolonged mechanical ventilation is increasing for children with chronic critical illness. Shared decision-making practices are indicated when prognosis is uncertain, and quality of life is paramount. Prior surveys of parents, medical providers, and ICU staff demonstrate that exploration of parental hopes and worries surrounding tracheostomy and parental understanding of the implications of this procedure are inadequately addressed. Additionally, little is known about how providers can best be taught skills of shared decision-making in tracheostomy.

Objectives
- To improve education about shared decision-making in tracheostomy through the development and implementation of an online learning module.
- Target audience for online learning module: Pediatric and neonatal ICU providers (physicians, advance practice providers, nursing, respiratory therapy, social work).
- Any clinical team members who participate in family/team discussions surrounding tracheostomy placement with anticipated ventilator dependence.

Methods
- 30-minute online learning module developed at large academic medical center.
- Module contents included:
  - Definition of “shared decision-making in tracheostomy.”
  - Examples of parent decisions (ex. breast milk vs. formula feeding), clinician decisions (ex. antimicrobial choice for a given infection), and shared decisions (ex. experimental chemo in pt with recurrent malignancy and poor prognosis).
  - 17-minute video of parents discussing decision-making process.
  - Brief quiz evaluating:
    - Participant understanding of parental, clinician, and shared decisions.
    - Use of appropriate language for eliciting hopes, values, and worries from families facing a decision regarding tracheostomy placement.
- Module effectiveness was evaluated by optional post-module survey.

Learning Module Survey Results
- 452 participants completed the online learning module.
- 131 competed the optional post-module survey (29% response rate).
- 94% of respondents would recommend this course to a colleague.
- 74% of respondents would like opportunities for more education.

Conclusions
- An online learning module is a promising method of teaching medical team members the principles of shared decision-making in tracheostomy.
- An online learning module may be a useful tool to standardize and teach communication skills in shared decision-making more broadly.
- Further work includes evaluating the impact of this module on communication skills over time in real patient scenarios.
- Limitations of the post-module survey include relatively fewer physician respondents, which may decrease its utility in assessing learning module value for those clinicians leading these types of conversations at the bedside.

References

Contact
Laura C. Taylor MD, MSc; TaylorLC@med.umich.edu
Stephanie K. Kukora MD; Skkukora@cmh.edu