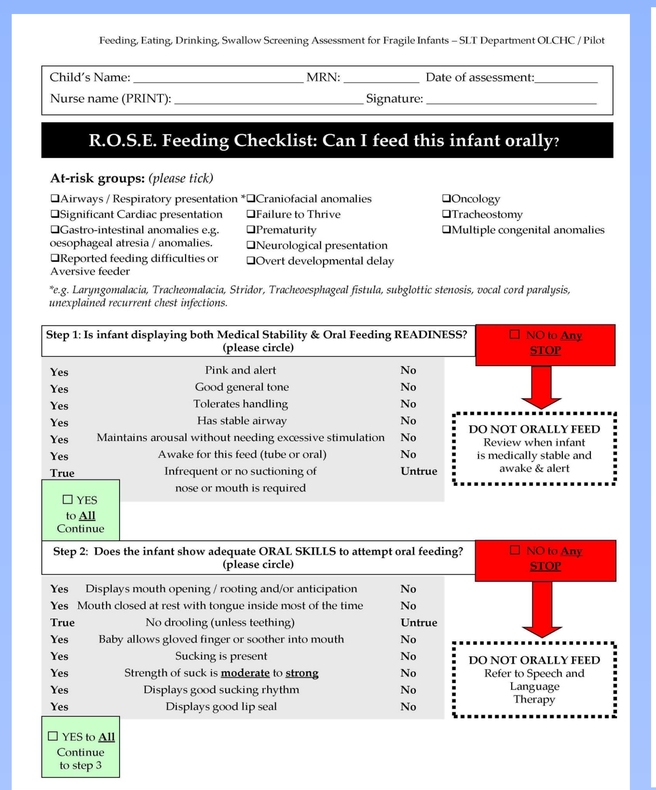
Evaluation of a Pilot Programme for Training Nursing Staff in Administering the R.O.S.E. Infant Oral Feeding Screening Tool

Zelda Greene[1], Catherine Cunningham[1], Fionnuala O'Neill[2], Christina Cotter[1]
[1]Speech and Language Therapy Department OLCHC, [2]Centre for Nurse Practice Development OLCHC

Introduction

Early identification and management of oral feeding difficulties in medically fragile infants is key in preventing/reducing respiratory morbidity, growth faltering, and longer term aversive oral feeding. The R.O.S.E. Infant Oral Feeding Screening Tool was developed by the SLT department in conjunction with Nurse Practice Development OLCHC and Trinity College Dublin to facilitate evidence-based management of infant oral feeding difficulties in an acute paediatric setting. The face, content and ecological validity of the R.O.S.E. have previously been established and nurse training needs identified. This study evaluates a pilot programme developed to train nurses in administering the R.O.S.E.



Feeding, Eating, Drinking, Swallow Screening Assessment for Fragile Infants – SLT Department OLCHC / Pilot

Child's Name: _____ MRN: _____ Date of assessment:_____

Nurse name (PRINT): _____ Signature: _____

R.O.S.E. Feeding Checklist: Can I feed this infant orally?

At-risk groups: *(please tick)*

- ❑Airways / Respiratory presentation *
- ❑Significant Cardiac presentation
- ❑Gastro-intestinal anomalies e.g. oesophageal atresia / anomalies.
- ❑Reported feeding difficulties or Aversive feeder
- ❑Craniofacial anomalies
- ❑Failure to Thrive
- ❑Prematurity
- ❑Neurological presentation
- ❑Overt developmental delay
- ❑Oncology
- ❑Tracheostomy
- ❑Multiple congenital anomalies

*e.g. Laryngomalacia, Tracheomalacia, Stridor, Tracheoesophageal fistula, subglottic stenosis, vocal cord paralysis, unexplained recurrent chest infections.

Step 1: Is infant displaying both Medical Stability & Oral Feeding READINESS? (please circle) ☐ NO to Any STOP

Yes	Pink and alert	No
Yes	Good general tone	No
Yes	Tolerates handling	No
Yes	Has stable airway	No
Yes	Maintains arousal without needing excessive stimulation	No
Yes	Awake for this feed (tube or oral)	No
True	Infrequent or no suctioning of nose or mouth is required	Untrue

DO NOT ORALLY FEED
Review when infant is medically stable and awake & alert

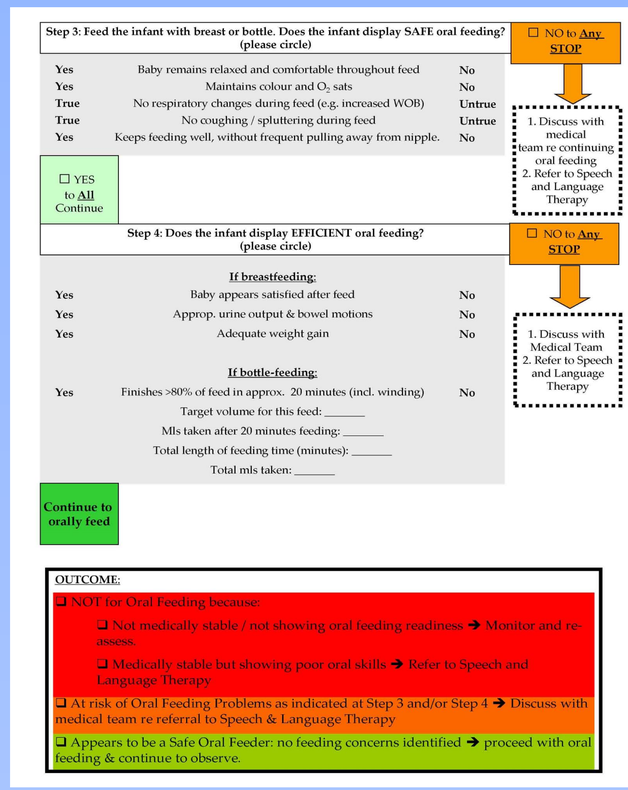
☐ YES to All Continue

Step 2: Does the infant show adequate ORAL SKILLS to attempt oral feeding? (please circle) ☐ NO to Any STOP

Yes	Displays mouth opening / rooting and/or anticipation	No
Yes	Mouth closed at rest with tongue inside most of the time	No
True	No drooling (unless teething)	Untrue
Yes	Baby allows gloved finger or soother into mouth	No
Yes	Sucking is present	No
Yes	Strength of suck is **moderate** to **strong**	No
Yes	Displays good sucking rhythm	No
Yes	Displays good lip seal	No

DO NOT ORALLY FEED
Refer to Speech and Language Therapy

☐ YES to All Continue to step 3



Step 3: Feed the infant with breast or bottle. Does the infant display SAFE oral feeding? (please circle) ☐ NO to Any STOP

Yes	Baby remains relaxed and comfortable throughout feed	No
Yes	Maintains colour and O_2 sats	No
True	No respiratory changes during feed (e.g. increased WOB)	Untrue
True	No coughing / spluttering during feed	Untrue
Yes	Keeps feeding well, without frequent pulling away from nipple.	No

1. Discuss with medical team re continuing oral feeding
2. Refer to Speech and Language Therapy

☐ YES to All Continue

Step 4: Does the infant display EFFICIENT oral feeding? (please circle) ☐ NO to Any STOP

If breastfeeding:

Yes	Baby appears satisfied after feed	No
Yes	Approp. urine output & bowel motions	No
Yes	Adequate weight gain	No

If bottle-feeding:

Yes	Finishes >80% of feed in approx. 20 minutes (incl. winding)	No

Target volume for this feed: _____
Mls taken after 20 minutes feeding: _____
Total length of feeding time (minutes): _____
Total mls taken: _____

1. Discuss with Medical Team
2. Refer to Speech and Language Therapy

Continue to orally feed

OUTCOME:

- ❑ NOT for Oral Feeding because:
  - ❑ Not medically stable / not showing oral feeding readiness ➔ Monitor and re-assess.
  - ❑ Medically stable but showing poor oral skills ➔ Refer to Speech and Language Therapy
- ❑ At risk of Oral Feeding Problems as indicated at Step 3 and/or Step 4 ➔ Discuss with medical team re referral to Speech & Language Therapy
- ❑ Appears to be a Safe Oral Feeder: no feeding concerns identified ➔ proceed with oral feeding & continue to observe.

Methods

The SLT Department developed and piloted a short 20 minute training session covering: identification of risk, physiological indicators of **R**eadiness to feed, **O**ral skills, measures of **S**wallow safety and feeding **E**fficiency. Three training workshops were carried out in June 2017. Theory was presented first and then attendees practised using the R.O.S.E. by evaluating 3 case vignettes. Following training, attendees completed an evaluation form regarding ROSE format and several training session variables including the length of the s=training session, the amount of information presented, how confident they would feel using the ROSE after that training session.

Results

There were 25 participants across 3 training sessions (Table 1)
92% reported they liked the R.O.S.E. format. 96% were happy with the amount of information provided. 52% were happy with length of training. 44% felt it was too short. 20% felt very confident to use the R.O.S.E., and 80% felt reasonably confident that they would be able to use it following the training session. Only 20% said they would be very confident using the ROSE.

Table 1 Attendees responses

Question				***Total N = 25***
Do you like the structure / layout of the ROSE algorithm?	4% no response (1/25)	92% Yes (23/25)	4% No (1/25)	-
Was the training session:	0% no response (0/25)	44% To short (11/25)	52% Right length (13/25)	4% Too long (1/25)
Was the information provided:	4% no response (1/25)	0% Too little (0/25)	96% Just about right (24/25)	0% Too much info (0/25)
Would you feel confident to use the ROSE after this training session?	0% no response (0/25)	0% Not at all confident (0/25)	80% Reasonably confident (20/25)	20% Very confident (5/25)

Discussion

Similar to previous research, the R.O.S.E screening tool format was acceptable to nursing staff and its value in nursing practice is recognised. This study suggests a short 20 minute training may be adequate to ensure the nurses feel reasonably confident to use the R.O.S.E. However a large proportion of nurses felt the training was too short and only 20% felt very confident to administer the R.O.S.E. Mechanisms for assuring on-ward competency in administration need further development in conjunction with nurse practice development. Training platforms including face to face and digital online platforms with built in competency measures need to be explored in order to make the training accessible to the wider staff cohort.

Conclusion

A longer training session and competency measures now need to be developed in order for the ROSE training programme to be progressed.

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Zelda Greene
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