

Eligibility

Thank you for agreeing to take part in the survey.

To be eligible you must be able to select one of the options below.

I confirm that:

- ☐ I am a HCPC registered Speech and Language Therapist working in a neonatal unit
- ☐ I am a NMC registered nurse working in a neonatal unit
- ☐ I am a GMC registered doctor working in a neonatal unit

Consent

I consent to be part of this research study entitled 'Survey of feeding practices, amongst health care professionals, for infants receiving Nasal Continuous-Positive Airway Pressure (nCPAP) and High Flow Nasal Cannula (HFNC) respiratory support in the United Kingdom (UK)'.

- ☐ Yes
- ☐ No

I consent for my anonymised free text answers being used when sharing the

results.

- ☐ Yes
- ☐ No

I understand that my data cannot be withdrawn once submitted and anonymised.

- ☐ Yes
- ☐ No

I understand that my anonymous data will be made open access and so maybe used for secondary analysis in future projects.

- ☐ Yes
- ☐ No

Section 1. Demographics

What is your gender?

- ☐ Male
- ☐ Female
- ☐ Non-binary
- ☐ Prefer not to say
- ☐ My gender is not listed (please state)

What is your ethnicity?

- ☐ Asian, Asian British or Asian Welsh
- ☐ Black, Black British, Black Welsh, Caribbean or African
- ☐ Mixed or Multiple ethnic groups
- ☐ White
- ☐ Other ethnic group

What is your age in years? (Please state)

How many years' experience do you have working as a health professional?
(Please state)

How many years' experience do you have working in neonatal care? (Please state)

Which country do you live in?

- ☐ England
- ☐ Scotland
- ☐ Wales
- ☐ Northern Ireland

Which Neonatal Operational Delivery Network are you part of?

- ☐ East Midlands
- ☐ East of England
- ☐ North West
- ☐ London
- ☐ Northern
- ☐ Northern Ireland
- ☐ Scotland
- ☐ Kent, Surrey and Sussex
- ☐ South West
- ☐ Thames Valley & Wessex
- ☐ Wales
- ☐ West Midlands
- ☐ Yorkshire & Humber

How is your neonatal unit classified?

- ☐ Special Care Baby Unit (SCBU, SCU, low dependancy) - Level 1
- ☐ Local Neonatal Unit (LNU) - Level 2
- ☐ Neonatal Intensive Care Unit (NICU) - Level 3
- ☐ Don't know
- ☐ Other (please state)

What is your role?

- ☐ Speech and Language Therapist
- ☐ Nurse
- ☐ Medical Staff (neonatology)
- ☐ Medical Staff (respiratory)

☐ Other (please state)

What age group does your neonatal unit provide services to? (Please tick all that apply)

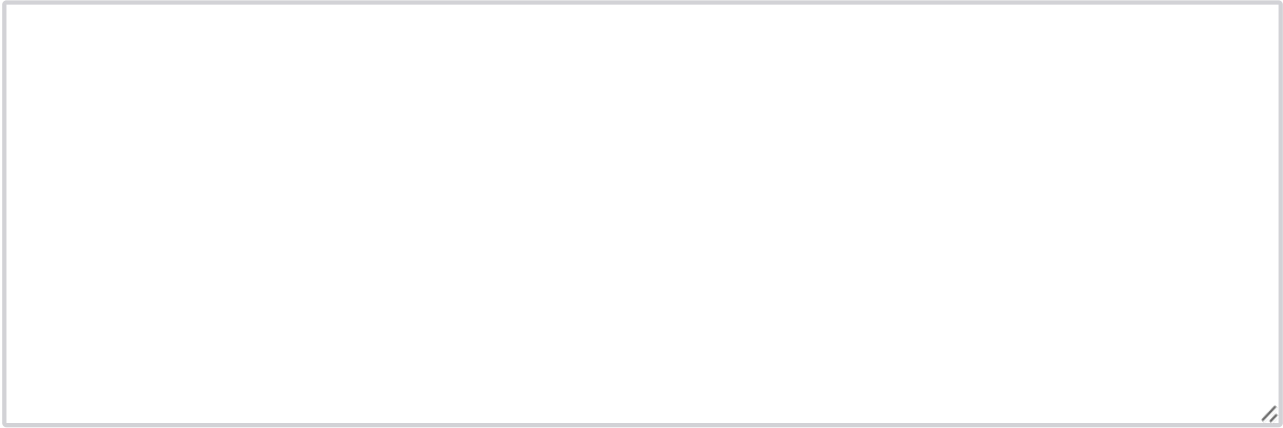
- ☐ Very preterm: < 28+0 weeks of gestation
- ☐ Moderately preterm: 28+0 - 33+6 weeks of gestation
- ☐ Late preterm: 34+0 - 36+6 weeks of gestation
- ☐ Early term: 37+0 - 38+6 weeks of gestation
- ☐ Full term: 39+0 - 41+6 weeks of gestation

Section 2. Guidelines

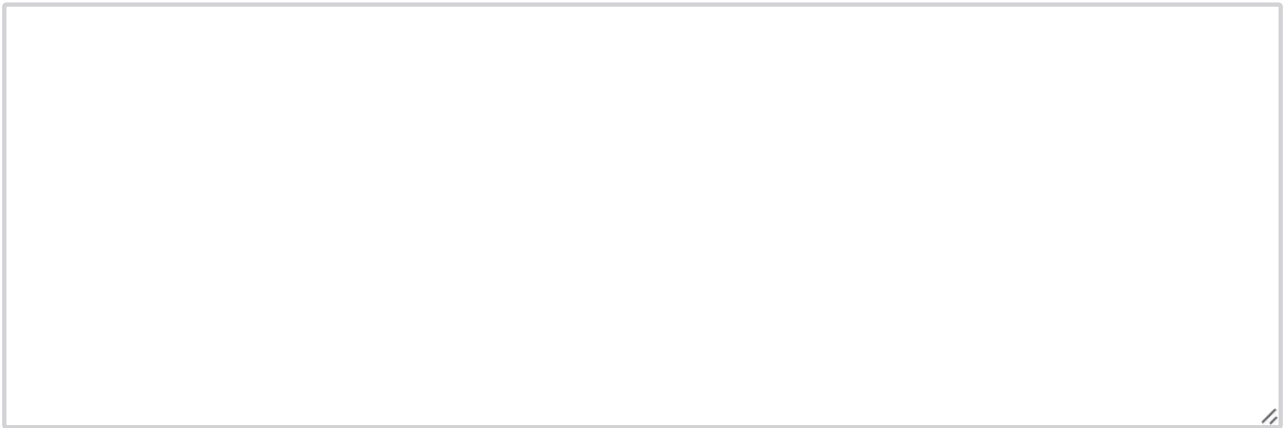
Does your neonatal unit have guidelines / pathways for feeding infants on nCPAP and/or HFNC? (Please give details in the free text box)

☐ No

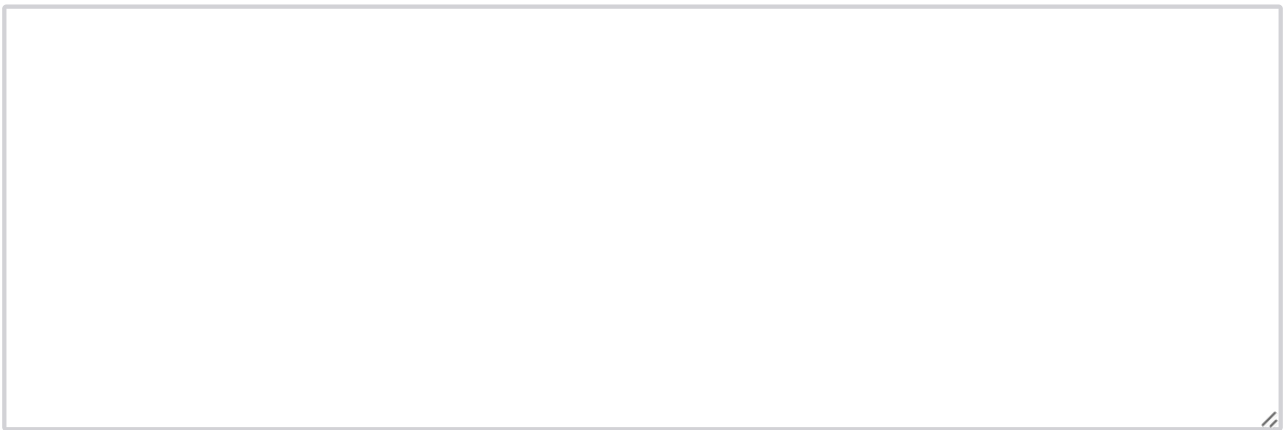
☐ Yes



☐ They are in development



☐ Don't know



Section 3. Oral feeding observation assessment

Who is part of the team that carries out the oral feeding assessment on your neonatal unit? (Please tick all that apply)

- ☐ Speech and Language Therapist
- ☐ Nursing staff
- ☐ Medical Staff
- ☐ Infant Feeding Team
- ☐ Lactation Consultant
- ☐ Don't know
- ☐ Other (please state)

When is an infant's oral feeding readiness assessed / reviewed? (Please tick all that apply)

- ☐ Around 32-34 weeks gestation
- ☐ Around 34 - 36 weeks gestation
- ☐ From 36 weeks gestation
- ☐ Prior to commencing oral feeds
- ☐ Following changes to medical stability
- ☐ When weaning respiratory support
- ☐ When feed volumes increase
- ☐ Once weekly
- ☐ Twice weekly
- ☐ Three times weekly
- ☐ Four times weekly
- ☐ Five or more times weekly
- ☐ Don't know
- ☐ Other (please state)

Are formal or informal oral feeding observation assessment tools used in your neonatal unit? (Please tick all that apply, including if only specific subscales are

used. Please provide your rational for using the selected assessments and/or subscales).

☐ UNICEF Breastfeeding Assessment Tool

☐ Bristol Breastfeeding Assessment Tool (BBAT)

☐ The Early Feeding Skills Assessment (EFS)

☐ Infant Breastfeeding Assessment Tool (IBFAT)

☐ LATCH Breastfeeding Assessment

☐ The Mother-Baby Assessment (MBA)



☐ Non-nutritive Sucking (NNS) Scoring System



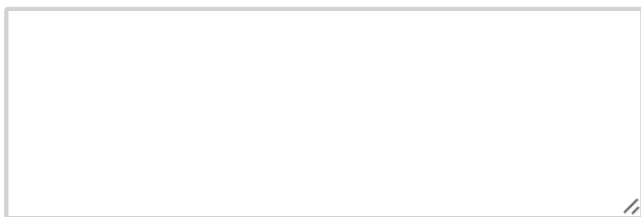
☐ Neonatal Oral-Motor Assessment Scale (NOMAS)



☐ Oral Feeding Skills (OFS)



☐ The Preterm Infant Breastfeeding Behavior Scale (PIBBS)



☐ Systematic Assessment of the Infant at Breast (SAIB)



☐ Infant Driven Feeding Scale

☐ Neonatal Eating Assessment Tool (NeoEAT)

☐ Neonatal Eating Outcome Assessment

☐ Don't know

☐ No

☐ Other (please state)

How often do you consider the following clinical areas when assessing an infant's oral feeding?

	Never	Rarely	Sometimes	Often	Always
Infant state of alertness	☐	☐	☐	☐	☐
Physiological state at rest (e.g. heart rate, respiratory rate, SpO2)	☐	☐	☐	☐	☐

Physiological state when handled (e.g. heart rate, respiratory rate, SpO2)	☐	☐	☐	☐	☐
Overall tone of infant	☐	☐	☐	☐	☐
Readiness cues (e.g. stirring, mouth opening, rooting)	☐	☐	☐	☐	☐
Palate	☐	☐	☐	☐	☐
Gag reflex	☐	☐	☐	☐	☐
Non-nutritive suck	☐	☐	☐	☐	☐
Suction	☐	☐	☐	☐	☐
Tongue-tie	☐	☐	☐	☐	☐
Lip seal / latch	☐	☐	☐	☐	☐
Suck-Swallow-Breathe co-ordination	☐	☐	☐	☐	☐
Safety of oral feeding	☐	☐	☐	☐	☐
Efficiency of oral feeding	☐	☐	☐	☐	☐
Signs of reflux	☐	☐	☐	☐	☐
Signs of distress (e.g. finger splaying, grimacing, turning away)	☐	☐	☐	☐	☐
Signs of aversion	☐	☐	☐	☐	☐
Other (please state) 	☐	☐	☐	☐	☐

What indicators are used to determine if the infant is not tolerating an oral feed?
(Please tick all that apply)

☐ Behavioural cues

- ☐ Changes in state
- ☐ Organisation of sucking, swallowing, and breathing
- ☐ Clinical signs of aspiration or laryngeal penetration
- ☐ None of the above
- ☐ Don't know
- ☐ Other

Is instrumental evaluation of the swallow used to assess swallow safety for infants in your neonatal unit?

- ☐ Yes
- ☐ No
- ☐ Don't know

If you responded yes to the above question “Is instrumental evaluation of the swallow used to assess swallow safety for infants in your neonatal unit?”, which instrumental evaluation tools do you use? (Please tick all that apply)

- ☐ Video-fluoroscopy swallow study (VFSS)
- ☐ Fibreoptic endoscopic evaluation of swallowing (FEES)
- ☐ Pharyngeal manometry
- ☐ Cervical Auscultation
- ☐ Pulse oximetry
- ☐ Don't know
- ☐ Not applicable
- ☐ Other

Section 4. Variability of terms

Are you a speech and language therapist?

- ☐ No
- ☐ Yes

When observed, how often do you use the following terms to indicate clinical signs of aspiration or laryngeal penetration?

	Never	Rarely	Sometimes	Often	Always
Cyanosis	☐	☐	☐	☐	☐
Watery eyes	☐	☐	☐	☐	☐
Eye tearing	☐	☐	☐	☐	☐
Eye blinking	☐	☐	☐	☐	☐
Eye reddening	☐	☐	☐	☐	☐
Grimacing	☐	☐	☐	☐	☐
Work of breathing	☐	☐	☐	☐	☐
Increased respiratory rate	☐	☐	☐	☐	☐
Cough	☐	☐	☐	☐	☐
Wet breathing	☐	☐	☐	☐	☐
Wet vocalisation	☐	☐	☐	☐	☐
Nasal congestion	☐	☐	☐	☐	☐
Noisy breathing	☐	☐	☐	☐	☐
Stridor	☐	☐	☐	☐	☐
Stertor	☐	☐	☐	☐	☐

Oxygen desaturation	☐	☐	☐	☐	☐
Bradycardia	☐	☐	☐	☐	☐
Tachycardia	☐	☐	☐	☐	☐
Disorganised suck-swallow-breath pattern	☐	☐	☐	☐	☐
Anterior loss / spillage	☐	☐	☐	☐	☐
Gulping	☐	☐	☐	☐	☐
Multiple swallows	☐	☐	☐	☐	☐

Section 5. Nasal Continuous-Positive Airway Pressure (nCPAP)

Is nCPAP used in your neonatal unit?

- ☐ Yes
- ☐ No
- ☐ Don't know

Who is involved in deciding when oral feeding is initiated for infants receiving nCPAP in your neonatal unit? (Please tick all that apply)

- ☐ Speech and Language Therapist
- ☐ Nursing staff
- ☐ Medical staff (neonatology)
- ☐ Medical staff (respiratory)
- ☐ Parent / carer
- ☐ Infant Feeding Lead

☐ Lactation Consultant

☐ Don't know

☐ Other

Do you perceive “decision-making about oral feeding for infants receiving nCPAP” as part of your role?

☐ Yes

☐ No

☐ Don't know

How often are infants who receive nCPAP fed orally?

Never

Rarely

Sometimes

Often

Always

Frequency of oral
feeding

☐

☐

☐

☐

☐

Which oral feeding methods are used to feed infants receiving nCPAP?

☐ Breastfeeding

☐ Bottle feeding

☐ Cup feeding

☐ Syringe

☐ Infants are not orally fed when receiving nCPAP

☐ Don't know

☐ Other (please state)

How often do you consider the following when deciding whether to feed an infant on nCPAP?

	Never	Rarely	Sometimes	Often	Always
Medical complexity	☐	☐	☐	☐	☐
Gestational age	☐	☐	☐	☐	☐
Weight	☐	☐	☐	☐	☐
Flow rate (cmH20)	☐	☐	☐	☐	☐
Infant recently weaned into air or low flow oxygen	☐	☐	☐	☐	☐
Feeding readiness cues	☐	☐	☐	☐	☐
Route of oral feeding (e.g. breast, bottle)	☐	☐	☐	☐	☐
Type of milk (e.g. breast milk, formula)	☐	☐	☐	☐	☐
Tolerance of touch around the face and/or mouth	☐	☐	☐	☐	☐
Pre-existing feeding difficulties	☐	☐	☐	☐	☐
Other 	☐	☐	☐	☐	☐

How often do you use the following strategies when orally feeding an infant receiving nCPAP?

	Never	Rarely	Sometimes	Often	Always
Changes to environment	☐	☐	☐	☐	☐
Changes to staff / family-carers ability to read the					

infants communication (e.g. cue-based feeding)	☐	☐	☐	☐	☐
Volume limited feeds	☐	☐	☐	☐	☐
Time limited feeds	☐	☐	☐	☐	☐
Changes to calorific density of milk	☐	☐	☐	☐	☐
Monitoring physiological state	☐	☐	☐	☐	☐
Specific criteria for respiratory stability (e.g. respiratory rate)	☐	☐	☐	☐	☐
Respiratory support reduced	☐	☐	☐	☐	☐
Changes to pressure (cmH2O)	☐	☐	☐	☐	☐
Positioning modifications	☐	☐	☐	☐	☐
Swaddling	☐	☐	☐	☐	☐
Positive oral touch (e.g. facial massage)	☐	☐	☐	☐	☐
Oral preparation (e.g. non- nutritive sucking practice)	☐	☐	☐	☐	☐
Therapeutic tastes	☐	☐	☐	☐	☐
Modifying fluid consistency	☐	☐	☐	☐	☐
Specific feeding equipment (e.g. type of teat)	☐	☐	☐	☐	☐
Chin / buccal support	☐	☐	☐	☐	☐
External pacing	☐	☐	☐	☐	☐
Monitoring for clinical signs of aspiration	☐	☐	☐	☐	☐

Other (please state)



Who provides oral feeds to the infants receiving nCPAP? (Please tick all that apply)

☐ Speech and Language Therapist

☐ Nursing staff

☐ Medical staff (neonatology)

☐ Medical staff (respiratory)

☐ Infant Feeding Team

☐ Lactation Consultant (support)

☐ Parents / carers

☐ Don't know

☐ Other (please state)

Section 6. High Flow Nasal Cannula (HFNC)

Is High Flow Nasal Cannula respiratory support use in your neonatal unit?

☐ Yes

☐ No

☐ Don't know

How does your neonatal unit define high flow?

☐ 1 or more litres per minute (>1L/min)

☐ 2 or more litres per minute (>2L/min)

☐ 3 or more liners per minute (>3L/min)

☐ Litres per kilogram (L/kg)

☐ Don't know

☐ Other (please state)

Who is involved in deciding when oral feeding is initiated for infants receiving HFNC in your neonatal unit? (Please tick all that apply)

☐ Speech and Language Therapist

☐ Nursing staff

☐ Medical staff (neonatology)

☐ Medical staff (respiratory)

☐ Parent / carer

☐ Infant Feeding Team

☐ Lactation Consultant

☐ Don't know

☐ Other

Do you perceive “decision-making about oral feeding for infants receiving HFNC” as part of your role?

☐ Yes

☐ No

☐ Don't know

Are infants who receive HFNC fed orally?

Never

Rarely

Sometimes

Often

Always

Feeding whilst
receiving HFNC

○ ○ ○ ○ ○

Which oral feeding methods are used to feed infants on HFNC? (Please tick all that apply)

- ☐ Breastfeeding
- ☐ Bottle feeding
- ☐ Cup feeding
- ☐ Syringe
- ☐ Infants are not orally fed when receiving HFNC
- ☐ Don't know
- ☐ Other (please state)

How often do you consider the following when deciding whether to feed an infant on HFNC?

	Never	Rarely	Sometimes	Often	Always
Medical complexity	○	○	○	○	○
Gestational age	○	○	○	○	○
Weight	○	○	○	○	○
Infant recently weaned into air or low flow oxygen	○	○	○	○	○
Flow rate (L/min, L/kg)	○	○	○	○	○
Feeding readiness cues	○	○	○	○	○
Route of oral feeding (e.g. breast, bottle)	○	○	○	○	○
Type of milk (e.g. breast milk, formula)	○	○	○	○	○

Tolerance of touch around the face and/or mouth

☐☐☐☐☐

Pre-existing feeding difficulties

☐☐☐☐☐

Other (please state)

☐☐☐☐☐

How often do you use the following strategies when orally feeding an infant receiving HFNC?

	Never	Rarely	Sometimes	Often	Always
Changes to environment	☐	☐	☐	☐	☐
Changes to staff / family-carers ability to read the infants communication (e.g. cue-based feeding)	☐	☐	☐	☐	☐
Volume limited feeds	☐	☐	☐	☐	☐
Time limited feeds	☐	☐	☐	☐	☐
Changes to calorific density of milk	☐	☐	☐	☐	☐
Monitoring physiological state	☐	☐	☐	☐	☐
Specific criteria for respiratory stability (e.g. respiratory rate)	☐	☐	☐	☐	☐
Respiratory support reduced	☐	☐	☐	☐	☐
Changes to flow rate (L/min, L/kg)	☐	☐	☐	☐	☐
Positioning modifications	☐	☐	☐	☐	☐
Swaddling	☐	☐	☐	☐	☐

Positive oral touch (e.g. facial massage)	☐	☐	☐	☐	☐
Oral preparation (e.g. non-nutritive sucking practice)	☐	☐	☐	☐	☐
Therapeutic tastes	☐	☐	☐	☐	☐
Modifying fluid consistency	☐	☐	☐	☐	☐
Specific feeding equipment (e.g. type of teat)	☐	☐	☐	☐	☐
Chin / buccal support	☐	☐	☐	☐	☐
External pacing	☐	☐	☐	☐	☐
Monitoring for clinical signs of aspiration	☐	☐	☐	☐	☐
Other (please state)	☐	☐	☐	☐	☐

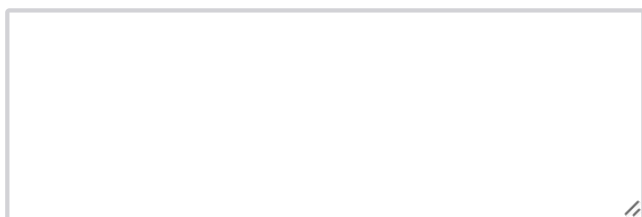
Who provides oral feeds to the infants receiving HFNC? (Please tick all that apply)

- ☐ Speech and Language Therapist
- ☐ Nursing staff
- ☐ Medical staff (neonatology)
- ☐ Medical staff (respiratory)
- ☐ Infant Feeding Team
- ☐ Lactation Consultant (support)
- ☐ Parents / carers
- ☐ Don't know
- ☐ Other (please state)

Section 7. No oral feeding on nCPAP

If you responded no to the question “Are infants who receive nCPAP fed orally?”, please tell us why? (Please tick all that apply)

- ☐ Medical team do not allow it
- ☐ Aspiration risk is unclear
- ☐ Infants are too young to commence oral feeding
- ☐ Team doesn't have sufficient expertise at this current point in time
- ☐ Not applicable
- ☐ Other



Section 8. No oral feeding on HFNC

If you responded no to the question “Are infants who receive HFNC fed orally?”, please tell us why? (Please tick all that apply)

- ☐ Medical team do not allow it
- ☐ Aspiration risk is unclear
- ☐ Infants are too young to commence oral feeding
- ☐ Team doesn't have sufficient expertise at this current point in time
- ☐ Not applicable
- ☐ Other



Section 9. Staff opinions

How often do you agree with the following health care professionals regarding feeding practices for infants receiving nCPAP? .

	Never	Rarely	Sometimes	Often	Always
Speech and Language Therapist	☐	☐	☐	☐	☐
Nursing staff	☐	☐	☐	☐	☐
Medical staff (neonatology)	☐	☐	☐	☐	☐
Medical staff (respiratory)	☐	☐	☐	☐	☐
Infant Feeding Team	☐	☐	☐	☐	☐
Lactation Consultant	☐	☐	☐	☐	☐
Parent / carer	☐	☐	☐	☐	☐
Other 	☐	☐	☐	☐	☐

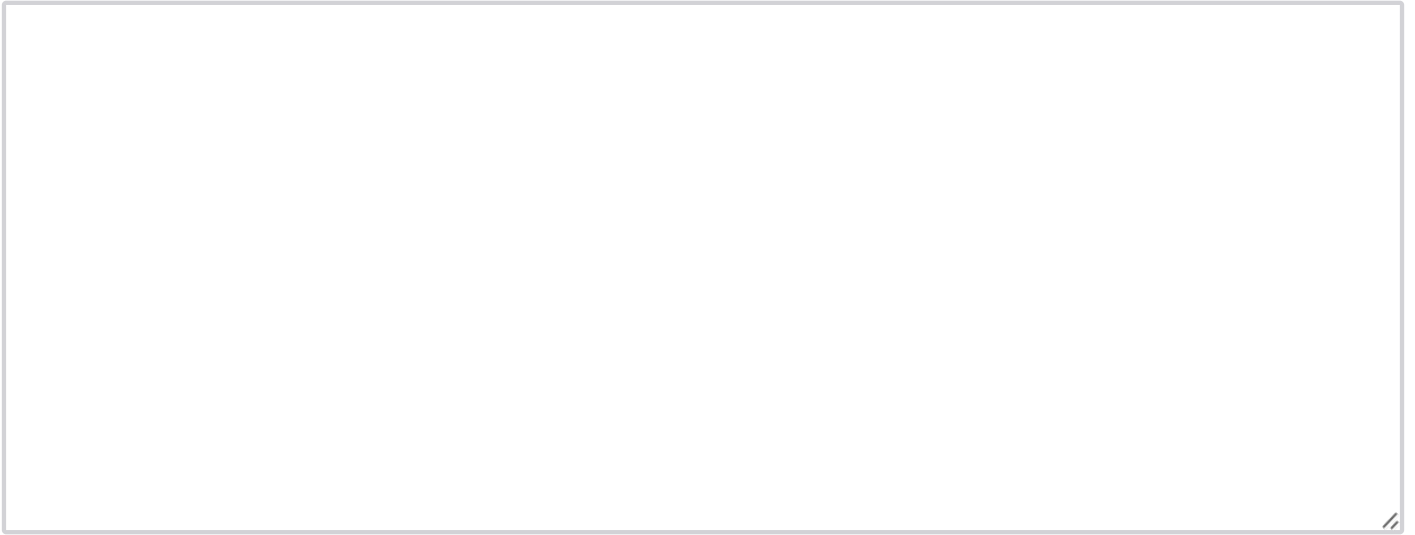
Please feel free to explain your response to Q40a in the free text box below



How often do you agree with the following health care professionals regarding feeding practices for infants receiving HFNC? Please feel free to explain your responses in the free text box.

	Never	Rarely	Sometimes	Often	Always
Speech and Language Therapist	☐	☐	☐	☐	☐
Nursing staff	☐	☐	☐	☐	☐
Medical staff (neonatology)	☐	☐	☐	☐	☐
Medical staff (respiratory)	☐	☐	☐	☐	☐
Infant Feeding Team	☐	☐	☐	☐	☐
Lactation Consultant	☐	☐	☐	☐	☐
Parent / carer	☐	☐	☐	☐	☐
Other (please state) 	☐	☐	☐	☐	☐

Please feel free to explain your response to Q41a in the free text box below



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