Guidelines for Planning PO Intake for People on HFNC

by Karen Sheffler, MS, CCC-SLP, BCS-S of SwallowStudy.com, 2020

References: https://swallowstudy.com/high-flow-nasal-cannula-hfnc-does-it-increase-dysphagia-aspiration-risk/

Y/N	QUESTIONS (YES / NO)	CONSIDERATIONS
	1. Stable respiratory status on HFNC?	Discussion with nurse & medical team: meaning not risk for a downgrade to CPAP, BiPAP or intubation for mechanical ventilation
	2. Lower airflow rate?	40 liters per minute and above may be cause for increased caution. Increased risk of aspiration, variability, and difficulty swallowing due to high airflow pressures in nasopharynx (close to or at CPAP levels).
	3. FiO2 **not** near 100%?	If someone is on an FiO2 of 99-100%, that indicates that they are unstable, and rates this high are usually for 24 hours or less.
	4. Respiratory rate less than 25 - 30?	Under 30 breaths per minute. Above 25 breaths per minute should raise concerns.
	5. Stable medical condition?	Per discussion with nurse and medical team.
	6. Improving physical strength and condition?	Are they ambulatory (independent or with assistance)? Not bedridden? Improved mucociliary clearance and pulmonary clearance if they do have trace aspiration. Medical fragility, frailty and sarcopenia would increase risks for dysphagia and aspiration.
	7. Cleared for oral intake per the medical team?	Discuss thoroughly with nurse(s) and medical team. Risks/benefits of attempting PO trials.
	8. Adequate mental status to participate at mealtimes with supervision and/or assistance?	How is their attention to task? No agitation, distractibility, or impulsiveness? Eng, et al. (2019) and Flores, et al. (2019) noted that the **degree of cognitive impairment** was a big part of decision-making.
	9. Generally orientated?	Knows name. At least generally oriented to place and time. Person with lack of orientation has higher odds of aspirating. (Leder, et al., 2009)
	10. Follows 1-step commands?	At least able to participate in oral sensorimotor examination, such as stick out your tongue and smile. Inability to follow commands has higher odds of aspiration. (Leder, et al., 2009)
	11. Adequate tongue range of motion?	Impaired lingual range of motion was associated with aspiration (Leder, et al., 2013)
	12. Able to manage own secretions without significant suctioning?	Discuss with nurse; observe and listen to patient
	13. Passes the 3-ounce water screen portion of the Yale Swallow Protocol or similar swallow screen?	Pass: drinking 3 ounces of water with consecutive sip/swallows - without stopping.

	Yale Swallow Protocol (con't)	Fail: inability to drink in a continuous fashion, stopping, throat clearing, coughing immediately or in delay, distress, or significant change to a wet-gurgly vocal quality
	14. Adequate oral hygiene and a routine of good oral decontamination/oral infection control?	Review the importance of thorough mouth/teeth brushing with toothbrush and mouthwash; and not simply swabbing with toothettes. Prevents aspiration pneumonia.
	TOTAL YES answers: _____ out of 14.	If the number is **close to 14**, you may be more confident to attempt your first trials of foods and liquids by mouth at the bedside. Watch how the person's work of breathing and respiratory-swallowing coordination change with sitting up and eating/drinking. Perform an instrumental evaluation if any concerns. If there is a **lower number**, in addition to overt signs/symptoms of aspiration, and other concerns: Consider NPO. The person may need more time and/or an instrumental evaluation prior to further oral intake decision-making.
Note and consider the following, but these may not necessarily be exclusionary factors.		
	Gender?	Females may have higher expiratory pressures on HFNC at increasing airflow rates.
	Age?	Younger and healthier subjects in studies seem to show adaptation to high pressures in the short-term.
	How long have they been on HFNC?	Longer-term use may desensitize the area. The airflow *may* initially heighten awareness of the nasopharyngeal region, but this airflow & pressures may eventually desensitize and potentially decreased the sensation of residue and aspiration.
	What are the person's (healthcare proxy's/HCP) stated **goals of care** and amount of **accepted risk** for aspiration and choking? These can lead to aspiration pneumonia, a decline in medical condition, and death?	Healthcare professionals will document all discussions with the person (and HCP) regarding goals of care, decision-making, and wishes surrounding the risks/benefits of initiating any oral intake.
NOTE: This chart is paired with information & references in Sheffler, K. (2020, Dec) - High-Flow Nasal Cannula (HFNC): Does it increase dysphagia & aspiration risk? https://swallowstudy.com/high-flow-nasal-cannula-hfnc-does-it-increase-dysphagia-aspiration-risk/		