Table 1: Potential problems and solutions at patient, nurse, physician and system level for the bowel preparation process for inpatient colonoscopy

Level	Potential Problems	Potential Solutions
Patient	Poor palatability	Switch to Polyethylene glycol-electrolyte solution with flavor packets of 4 flavors attached to bottle and no sulfur taste
		Chill bowel preparation
		Mix with flavor powders or non-red juice
	Unable to drink fast enough due to volume or nausea (assuming obstruction not suspected) or altered mental status (i.e. delirium or dementia)	Anti-emetics
		Nasogastric Tube
	Not following instructions	Patient education handout
		Family involvement
	Inpatient status ± underlying risk factors for poor bowel preparation	Consider 6-L bowel preparation
		Consider 2-day bowel preparation
	Flushes bowel movement before nurse evaluating	Nursing places toilet hat when close to ready
Nursing	Floor nurse protocol cannot require bedside checks more frequently than every 4 h	Encourage family to help
		Recruit medical assistant participation
		Use of technology for reminders
	Unclear importance of bowel preparation and instructions highly variable	Standardize instructions
		Nursing education sessions
		Endoscopy and floor nurses discuss day prior to procedure
	Original nurse communication with instructions acknowledged by day shift nurse and not viewed by night shift nurse	Instructions in medication order so viewable when administering
		Orderset with timed instructions
	Variable reporting of readiness for procedure	Nursing education and picture of readiness on patient education
		Toilet hat
		Endoscopy and floor nurses discuss morning of procedure
Physician	Preparation recommended by gastroenterology highly variable leading to confusion	Create protocol for standardization
	Instructions from gastroenterology not clear and/or written in notes	Electronic note templates for easy use in gastroenterology notes
	Due to nature of complex inpatient consult service, decision-to-scope communicated late (i.e., after 6 pm) to primary team	Set mutually agreed upon expectation for early communication by gastroenterology with a set latest time (i.e., 4 pm)
	Ordering suppositories and enemas as "rescue" in the morning leads to false sense patient is clear when right side of colon is not	Using more bowel preparation instead of suppositories and enemas
		Conversion to 2-day preparation
	Boston Bowel Preparation Score not properly documented. This could be knowledge gap or due to busy inpatient consult service while scoping. Procedure notes written at end of day leading to memory and bias	Scoring education
		Document score in Brief-Op note immediately post-procedure for reference later when writing procedure note
	Primary team orders differently than gastroenterology recommendations	Primary team education
		Orderset
System	Amount of bowel preparation consumed not documented	Fellow or nurse go to bedside to document amount drank
		Educate nursing day prior to document in medical record
	Lag time between order and administration	Stock bowel preparation in pyxis on specific floors
	Long chain of communication: GI, primary team, day nurse, night nurse	Set protocol for communication expectations, note templates, ordersets
	Dietary keeps flavor mix packs and nursing unable to get after certain hour	Stock flavor packs on floor or use Polyethylene glycol-electrolyte solution with flavor packets of 4 flavors attached to bottle