First Dose TPN Training – Risk Register (What Could Go Wrong)

This document summarizes potential risks, errors, or complications for each training section. It integrates ASPEN, ESPEN, NICE, UpToDate, CMS, and Joint Commission guidance. Use this document as a resource for TPN First-Dose Training.

Section Topic	What Could Go Wrong
Regulations & Scope of Practice	• RN administering without order or outside scope → regulatory violation. • Failure to follow stricter state (MA/NH) rules → compliance issue. • Lack of competency documentation → DPH/Joint Commission citation. • Delegating tasks to unqualified personnel during first dose.
TPN Basics	• Incomplete understanding of TPN components → misinterpretation of orders. • Incorrect assumptions about compatibility → precipitation, emboli. • Attempting peripheral administration → extravasation, thrombosis.
Delivery in the Home Setting	• Non-sterile setup → CLABSI (catheter-related bloodstream infection). • Unsafe home environment (pets, poor refrigeration, clutter). • Caregiver mishandling line or tubing. • Wrong filter size → lipid embolism or line occlusion.
Solis CADD Pump Use	• Incorrect programming → wrong rate/volume infused. • Failure to prime tubing → air embolism. • Ignoring alarms (occlusion, air-in-line, low battery). • No backup pump/batteries → therapy interruption, rebound hypoglycemia.
First Dose Monitoring & Emergency Response	• RN not staying with patient during initiation. • Inadequate vitals monitoring → missed sepsis or hypersensitivity. • Delayed emergency response (no epinephrine, no 911 call). • Poor provider communication → delays in intervention.

Patient & Caregiver Teaching	• Overuse of jargon → poor understanding • No teach-back → hidden knowledge gaps. • Caregiver anxiety → refusal or unsafe handling. • No written materials → reliance on memory only.
Documentation in EPIC	• Missed required elements (labs, vitals, start/stop times). • Failure to document adverse events promptly • Inconsistent documentation → non-standard practice. • Survey/litigation risk due to incomplete notes.
Policy & SOP	• No clear escalation pathway → delayed response. • Labs not specified for pre/post infusion monitoring. • Policy does not restrict RN-only first dose → unsafe delegation. • Lack of standardized SOP → practice variability.
Competency Validation	• No standardized checklist → inconsistent evaluation. • RN passes written but fails practical (gap unaddressed). • Skills not revalidated routinely → drift in practice. • No simulation exposure → poor first real-world response.
Case Scenarios / Simulation	• Unrealistic scenarios → poor preparation. • No structured debrief → missed lessons • Unsafe habits practiced in sim carried into home care.
First Dose vs. Subsequent Doses	• First dose treated like routine infusion → missed monitoring. • Caregiver attempts first dose → regulatory violation. • Complacency in subsequent doses → infection or metabolic issues overlooked.
References & Guidelines	• Use of outdated guidance (pre-2020). • Not aligning with CMS/Joint Commission documentation/environment standards. • Inconsistent references across training materials → confusion.