Recent approaches in treating pancreatic adenocarcinoma, an aggressive disease with limited survival, include the use of liposomal irinotecan as an option when first-line therapy has failed. Liposomal irinotecan has been approved in combination with 5-fluorouracil and leucovorin for patients with metastatic pancreatic cancer. Liposomal irinotecan is a newer therapy requiring oncology nurses to obtain knowledge and skills for proper administration, monitoring of hypersensitivity reactions during infusion, managing side effects, and providing patient education. Nursing considerations when administering this drug include infusion time, premedication, risk for hypersensitivity reactions and adverse events, and side effects.

**AT A GLANCE**
- Newer treatment for metastatic pancreatic adenocarcinoma involves the use of liposomal irinotecan as second-line therapy.
- Liposomal irinotecan can improve drug delivery and reduce toxicity in metastatic pancreatic adenocarcinoma.
- Oncology nursing considerations for liposomal irinotecan involve chemotherapy administration, adverse events, and side effects.

**Liposomal Irinotecan Versus Irinotecan**

Liposomal irinotecan and irinotecan are not interchangeable drugs because of their specific mechanisms of action. Irinotecan, a cytotoxic alkaloid derivative of synthetic camptothecin, targets the topoisomerase I enzyme involved in DNA replication, transcription, and repair (Grapsa et al., 2016). The active metabolite of this drug, known as SN-38, can cause significant neutropenia, cholinergic responses occurring within 24 hours (e.g., diaphoresis, flushing, abdominal cramping, early-onset diarrhea), and late-onset side effects occurring after 24 hours (e.g., diarrhea, anorexia, immunosuppression) (Ipsen Biopharmaceuticals, 2017). Nanoliposomal formulation of irinotecan improves pharmacokinetics delivery by increasing drug encapsulation and loading efficiency to prolong circulation with sustained release time for enhanced anti-tumor activity (from exposure to SN-38) while reducing gastrointestinal toxicity in the bloodstream compared to irinotecan (Kang et al., 2015; Zhang, 2016). Liposomal irinotecan remains in the bloodstream for 11.7 hours, whereas irinotecan remains in the bloodstream for 6.07 hours (Lamb & Scott, 2017). Advantages of choosing liposomal irinotecan over irinotecan include the ability to break up extensive growth of dense fibrous tissue, known as a desmoplastic response, found around tumors (Garrido-Laguna & Hidalgo, 2015) in people with metastatic PDAC.

**Nursing Considerations**

Nursing considerations for liposomal irinotecan therapy involve premedication...