Nurse Practitioner-Led Postoperative Telehealth for Hepato-Pancreato-Biliary Surgical Oncology Patients

Elizabeth Good, DNP, RN, ACNS-BC, ACNP-BC;
Beth Turrentine, PhD, RN; Ishan C. Williams, PhD, FGSA

UVA SCHOOL of NURSING

Purpose

Quality improvement initiative, nurse practitioner (NP)-led post-discharge practice change. Implementation of systematic telehealth (video or telephone) follow-up visits after HPB surgery to:

- Identify surgical site infections (SSIs) earlier
- Proactively promote patient satisfaction and engagement
- More expeditiously manage care before scheduled in-person visit weeks after discharge
- Demonstrate financial implications.

Significance

No consensus guidelines outline strategies to identify HPB postoperative concerns post-discharge. Local ACS-NSQIP[1] informed SSI rates as area for improvement.

Background

- Complex surgeries ~37,335 annually in United States with 39-44% morbidity, 5-11% mortality.[2,3]
- Infection primary cause for first readmission.[4]
- Reliance on patients to outreach between discharge and return to clinic, concerns not consistently identified early.
- Unplanned 30-day readmission rates vary 10-21%[4-5] readmits 7-14 days post-discharge.[6,7]
- SSIs associated with higher costs.[8]

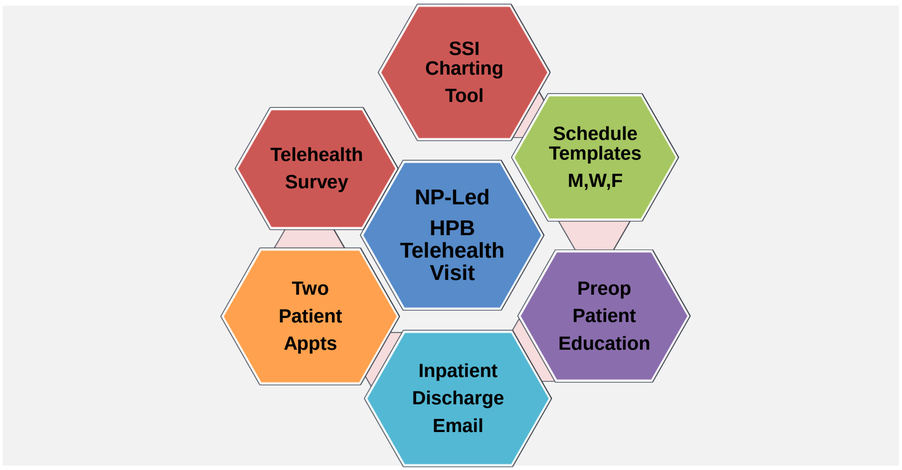
Scan for References

Available Knowledge

Review of literature supports implementation of telehealth follow-up visits.

- Telehealth as supplemental communication mode, not to replace in-person postoperative visit.
- Patient satisfaction favors telehealth integration.
- Early identification of postoperative complications like SSIs demonstrated with telehealth.

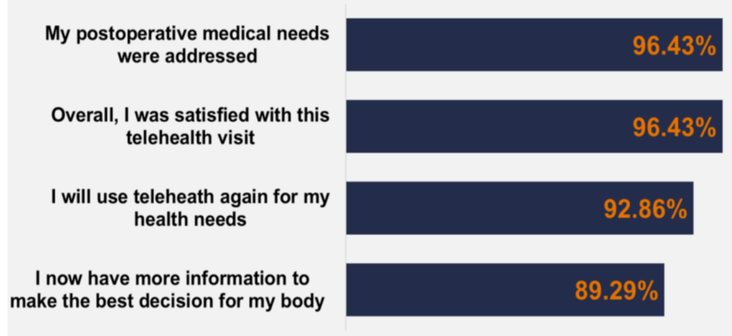
Plan-Do-Study-Act Model[9] - Key Implementation Steps



Results

- Data collected over 10 weeks.
- N=36 telehealth visits (median 27.5 minutes) conducted within 5 days discharge, median 4 days.
- One SSI identified during telehealth visit.
- Eight SSIs in total and 88% readmitted.
- Whipple surgery (62.5%) and incisional drainage most common SSI indicators.
- Survey respondents (N=28) validated usefulness and satisfaction with visits.

Percentage of Respondents (N= 28) that Strongly Agreed/Agreed with the Following Statements



Sustainability

- High satisfaction survey responses confirm need for telehealth visits.
- Telehealth hardwired in HPB workflow as established practice change.
- Patients benefit from early intervention of NP in post-discharge care.
- No additional cost expenditures for program.
- Estimated cost avoidance of one SSI, no hospitalization, in 2025 dollars ~$27,273.[8]

Conclusions

- NP-led telehealth identifies HPB postoperative SSIs and positively impacts patient satisfaction.
- Future directions include incorporation of preoperative risk stratification tool, extension of visits to within 7 days after discharge, and increased utilization of nursing team.
- Project may help guide other surgical oncology teams to lead similar QI initiative across a health system.