Improving Nurse Navigator Effectiveness and Geriatric Oncology Patient Tracking

MIT Healthcare Lab (H-Lab) 2021
Host: Roger Williams Medical Center (RWMC)
Providence, RI, USA

Project Background

Nurse Navigator

Supports geriatric (age 65+) oncology patients through all phases of treatment.

Helps remove barriers to care, increase quality of life, and improve outcomes.

Program key challenges:

- One resource for ~90 patients
- Isolated program for RWMC
- Growing patient population
- Lack of standardized processes
- Ad-hoc collaboration
- Cancer Clinic and hospital intake
- Manual, disparate tracking tools

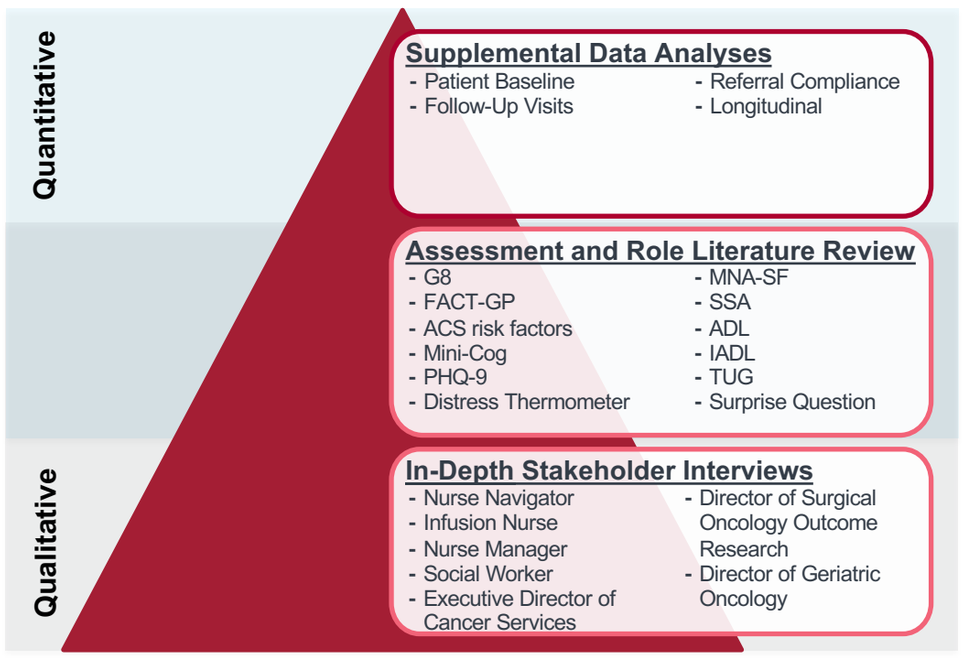
Desired H-Lab contributions:

- Screening measure suggestions
- Academic and market research
- Process clarification and gaps
- Tangible role and tool opportunities

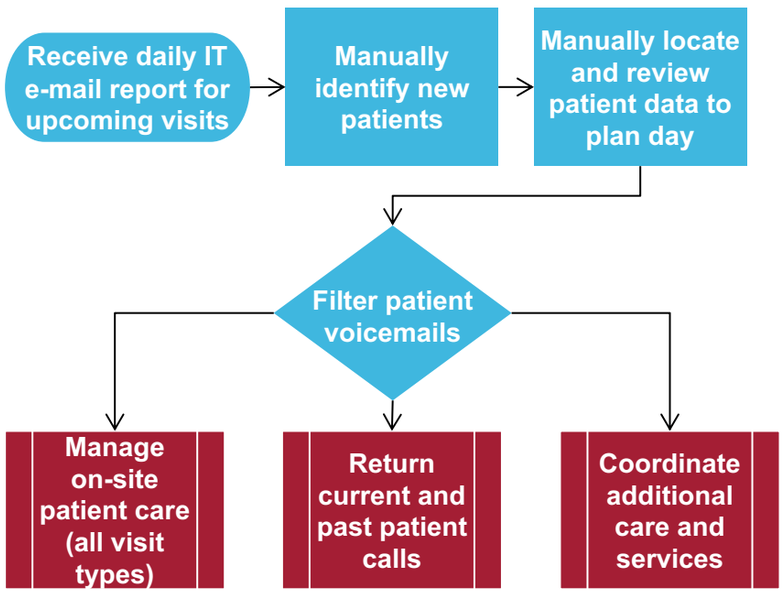
Methodology

General and healthcare-oriented process improvement:

- **Lean Six Sigma –** Drive E2E efficiency via value-add activities
- **FOCUS-PDCA –** Emphasize quality with a defined plan



Current Daily Workflow



Supporting Database Analyses

Major data insights:

- Patients need multidisciplinary support
- Low referral compliance for SW and PT
- Low follow-up visit show rate and long delays
- High variance in patient assessment result changes across different time periods

Patient Follow-Up Visits

Initial Follow-Up	# Patients (311 Total)	Net Retention Rate	# No-Show
30-day	170	55%	141
90-day	142*	84%	28
180-day	122**	86%	20

**Some who miss the 30-day visit may return for the 90-day*
***Some who miss the 90-day visit may return for the 180-day*

Assessment-Based Referral Compliance

	Pre-Treatment			30-Day			90-Day			180-Day		
Care Referral	# Needed	# Executed	% Compliance	# Needed	# Executed	% Compliance	# Needed	# Executed	% Compliance	# Needed	# Executed	% Compliance
Social Worker*	148	48	32%	73	32	44%	54	22	41%	30	8	27%
Psych. Professional	12	11	92%	3	3	100%	1	1	100%	0	0	100%
Medication Review	130	123	95%	74	74	100%	47	47	100%	48	46	96%
Dietician	110	108	98%	68	68	100%	37	37	100%	23	22	96%
Physical Therapy	35	15	43%	18	11	61%	5	3	60%	6	3	50%

Recommendations and Implications

Assessment Area	Screening Tool	Triggered Referral
General Geriatric	G8	Increased monitoring (E.g. Social Worker, Surgical Teams)
Quality of Life	FACT-GP	Based on well-being category (E.g. Emotional → Psych NP)
Delirium Risk	Recommended risk factors (ACS)	Perioperative care team, Geriatric consultation
Cognitive Impairment	Mini-Cog	Neurologist
Depression	PHQ-9	Social Worker or Psychiatric Professional based on score
Malnutrition	MNA-SF	Dietician
Difficulty Swallowing	Standardized Swallowing (SSA)	Speech Pathology/ Nutrition Specialist
Impaired Functional Status	ADL IADL	Social Worker
Impaired Mobility	TUG	Physical Therapy
Palliative Care	Surprise Question	Palliative care services

Standard Frequency: 30-60-90-180 days | **Total Approx. Time: 40-60 mins**

Recommendation progress implications

Workflows:

- Distinct Nurse Navigator role, responsibilities, and pain points
- Standardized processes supported by stakeholder input and data
- Streamlined assessment tools and clear risk stratification triggers

Patient lifecycle management:

- Designed and mocked-up set of digital patient tracking tools
- Updated daily report attributes for prioritizing care and taking notes
- Established KPIs to track program effectiveness and efficiency

Recommended next steps

Finalize and implement Nurse Navigator patient management workflows	Align with core care team on role-specific activities	Approve streamlined screening assessment use and triggers	Document processes and set QA/QC reviews for continuous improvement	Collaborate with SW to align new patient binder (WIP) content and contacts
Work with IT to build automated, synchronous patient tracking tools and KPIs	Confirm suggested KPIs and tab elements with data sources	Align with IT on feasible integrated tools design roadmap and begin development	Revise the daily e-mail report to provide critical info and identify daily visit priorities	Set up QA/QC reviews for technical and functional improvements

Main Literature

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Project Description

Cancer treatment is a complex process, and it is especially stressful for the elderly. RWMC found a way to help these patients by dedicating a nurse role; a geriatric oncology Nurse Navigator to oversee visits, conduct screening assessments, coordinate team-based care, and reduce stress throughout treatment. However, this important role seemed to keep assuming additional responsibilities. During COVID-19, the Nurse Navigator even had to check all incoming clinic patient temperatures, hardly finding time for main duties.

Hospital management H-Lab to define and evaluate the Nurse Navigator workflow for recommendations to improve efficiency and patient outcomes. We spent months interviewing staff, researching relevant literature, and analyzing data. Our proposed solutions concentrate on modifying current processes and establishing a set of tools with KPIs to manage patients.

The Team

Olivia Goldman | Roman Khabibulin | Flore Nouvel | Christine Zhang

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