Poster #16

Feasibility and Acceptability of Cancer Screening Programs in the Emergency Department : A Delphi Study

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Introduction

- Cancer screening disparities are increasing, particularly among individuals with limited access to healthcare.
- Emergency department (ED) is a potential safety net setting for implementing screening programs.
- This study aims to use the Delphi method to determine which characteristics and existing ED-based cancer screening interventions are most feasible and acceptable for ED implementation.

Methods

- A two-round modified Delphi study to survey ED leadership was conducted
- Leaders from 5 health systems across the US were recruited via snowball sampling
- Participants ranked and had the opportunity to re-rank:
  - **Criteria** for a cancer screening program (high quality, evidence-based, financially sustainable, follow-up systems, minimizes ED-staff burdens, etc)
  - **Cancer types** to be considered for targeted (breast, cervical, colorectal, lung)
  - **Program types** (simple referral, enhanced referral, educational interventions, in-ED screening)
  - **Patient eligibility determination** (EHR screening, trained research associates, tablet survey, chief complaint screening, triage nurses)
  - **Individual screening programs** (verbal and paper education, HPV vaccines, simple referral, enhanced referral with a texting program, motivational interviewing, in-ED HPV self-swab screening kits)
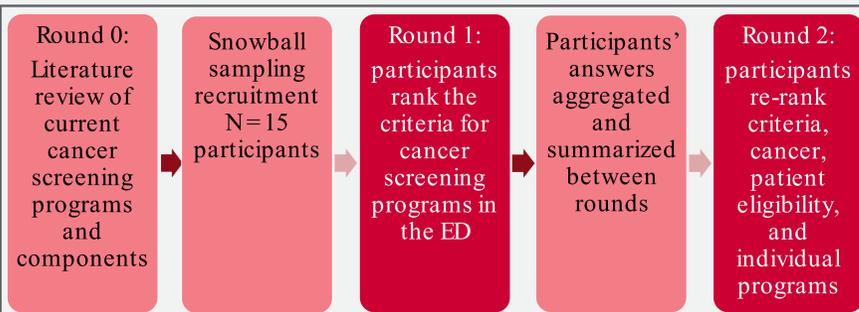

Round 0: Literature review of current cancer screening programs and components → Snowball sampling recruitment N=15 participants → Round 1: participants rank the criteria for cancer screening programs in the ED → Participants' answers aggregated and summarized between rounds → Round 2: participants re-rank criteria, cancer, patient eligibility, and individual programs

Figure 1: Workflow of the Delphi process.

Key: Light red shading = done by researcher; dark red shading = done by participants

Results

Table 1: Delphi Process Engagement

Round 1	15 (100%)
Round 2	13 (87%)

Table 2: Delphi Process Engagement

Emails Sent	31
Participants Recruited	15 (48%)

Table 3: Top 3 Screening Programs (closer to 5 = best)

Enhanced Referral - Patient Navigators	3.93 (1.28)
Simple Referral	3.80 (1.15)
In-ED Educational Handouts	3.53 (1.53)

Table 4: Participant Demographics

		Count (%)
Gender		
	Man	6 (40)
	Woman	9 (60)
Role within ED		
	Attending Physician	9 (60)
	ED Operations	10 (67)
	Department Chair	2 (13)
	Medical Director	5 (33)
	Nurse	4 (27)
	Other	1 (7)
Function in EM		
	Clinical	12 (80)
	Research	2 (13)
	Operations	13 (87)
	Administrative	12 (80)

Table 5: Scoring at the end of Round 2 (closer to 1 = best)

Criteria	Average Score (STDEDV)
1. Is a program of high quality	2.67 (2.53)
2. Relies on evidence-based practices from trusted sources	4.00 (2.30)
3. Is financially sustainable to patients and the health care system	4.25 (2.05)
4. Is performed with appropriate follow-up systems in place	4.33 (1.23)
5. Only occurs if primary ED functions and key quality metrics are largely unaffected	4.58 (2.81)
6. Minimizes the burden placed on ED clinical staff	4.92 (2.64)
7. Addresses Health Disparities	6.25 (2.18)
8. Considers local disease and risk factor epidemiology	6.58 (2.50)
9. Aims for transparency and communication with patients and community stakeholders	7.42 (1.73)
Cancer Type	
1. Lung	2.15 (1.28)
1. Breast	2.15 (0.99)
3. Colorectal	2.46 (0.88)
4. Cervical	3.23 (1.09)
Program Type	
1. Simple referral	2.23 (1.54)
2. Educational interventions: Connections outside ED	2.62 (0.65)
3. Educational interventions: In ED	2.85 (1.52)
4. Enhanced referral	3.08 (1.04)
5. In-ED cancer screening	4.23 (1.48)
Patient Eligibility	
1. Utilize the Electronic Health Record to identify patients in the ED who are overdue for cancer screening.	1.80 (1.01)
2. Trained research associates implement a survey to identify patients overdue for cancer screening.	2.27 (1.16)
3. Patients use a tablet in the ED waiting room self-identify as overdue for cancer screening.	2.67 (1.23)
4. Screen patients in the ED based on their chief complaint.	3.47 (0.83)
5. Triage nurses identify patients overdue for cancer screening based on self-report.	4.80 (0.41)

Discussion

Based on the data collected, the following were ranked highest for each category:

- "A Program of High Quality" was ranked as the most important criteria for choosing a screening program in the ED
- Breast Cancer and Lung Cancer were the most relevant for screening in the ED
- "Utilize the Electronic Health Record (EHR)" as a way to identify patients in need of screening
- Top three current programs: Patient navigators, simple referral programs, in-ED educational handouts

Limitations:

- Attrition over multiple rounds
- Expert selection bias
- Variability of participants' ED resources
- Consensus does not necessitate correctness

Conclusion/Future Direction

- We will conduct a third round of this study to provide participants the opportunity to change their recommendations and rankings until we have stability and/or consensus.
- This study generates expert recommendations to determine which types of cancer screening interventions are most acceptable and feasible to ED leaders, thereby ensuring buy-in from an early stage.

Acknowledgments