# **Hereland Clinic** Hillcrest Hospital

# Same Day Surgery Follow-up Phone Calls – Return on Investment? Amy Berardinelli DNP RN NE-BC CPAN<sup>1</sup> • Angela Sotka BSN RN CPAN<sup>1</sup> • Esther Bernhofer PhD RN<sup>2</sup> <sup>1</sup>Nursing Institute, Surgical Services, <sup>2</sup>Nursing Institute, Nursing Research & Innovation Cleveland Clinic, Hillcrest Hospital, Mayfield Heights, Ohio

# PURPOSE

To analyze the differences of same day study (SDS) patients' confidence levels in implementing their discharge instructions if they received a follow-up call from a Registered Nurse (RN) within 72 hours of discharge as opposed to standard care, written and verbal instruction at discharge only.

# BACKGROUND

- Surgical patients are less likely to spend the night in the hospital resulting in same day discharge to home
- In the phase II recovery area of a surgical center, nurses and patients have little time together to discuss home-going instructions
- Post-operative follow-up phone calls are common practice following SDS
- Post-operative calls to the patient were made by the administrative assistant in the perioperative unit and only elevated to the nurse if there were clinical questions
- The calls are brief and focus on questions related to immediate safety factors, and the patient experience
- There was little research that investigated whether a call by a RN would decrease complications, and increase compliance with the written discharge instructions

# **RESEARCH QUESTIONS**

- 1) Are those that receive the Physical Condition Post-op follow-up phone call from a registered nurse within 72 hours of discharge, in addition to receiving their written discharge instructions, more confident implementing the instructions than those who receive the written discharge instructions alone as measured by the Physical Condition Post-op follow-up phone call?
- 2) Is there a relationship among demographic characteristics (age, gender, marital status, race/ethnicity) of participants and confidence in implementing post-surgical discharge instructions as measured by the My Health Confidence Tool?
- 3) Is there a difference between those that receive the Physical Condition Post-op follow-up phone call from a registered nurse within 72 hours of discharge, in addition to receiving their written discharge instructions, and those who receive the written discharge instructions alone in attending their post-op appointments, incidents of seeking additional medical care via phone or coming in to the clinician's office, and reasons for seeking additional medical care?

# METHODS

- survey methods



#### Setting and Sample

- community, teaching
- **Outcomes and Measures**

- Data Collection
- signed prior to surgery, in the pre-operative area Statistical Analysis
- deviations or medians and guartiles
- categorical variables
- A signified level of 0.05 was assumed for all tests

### • This study used mixed method, 2-group comparative design, and telephone

• The Institutional Review Board provided oversight and approval of the research My Health Confidence Tool

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• Cleveland Clinic Hillcrest Hospital in Northeast, Ohio; 500 bed

• Adult SDS patients, 18 years of age and older, English-speaking, alert and oriented, with a working telephone, and ability to hear

• SDS patient confidence in implementing discharge instructions • Measured using a valid reliable tool, My Health Confidence Tool, asking 2 questions related to health confidence and health information

• Phone call surveys were completed at 24 - 72 hours post-operatively (for the intervention group), and again 1 week post-operatively (both groups) • A research information sheet was given to each participant; consents were

• Categorical variables were described using frequencies and percentages, while continuous variables were described using means and standard

• The relationship between group and outcome variables was described using Pearson Chi-square or Fischer's exact tests for non-ordered categorical variables, t-tests for normally distributed continuous measures and Wilcoxon rank sum tests for non-normally continuous measures and ordered

• Analyses were completed using SAS<sup>®</sup> Software (version 9.4; Cary, NC)

## RESULTS

Table 1. A summary of demographic variables.

Factor	Total (N=73)	Intervention (N=31)
Age	55.7±14.1	59.0±12.5
Gender Female Male	39(53.4) 34(46.6)	16(51.6) 15(48.4)
Marital Status Married Not Married	39(53.4) 34(46.6)	15(48.4) 16(51.6)
Race Black White	13(17.8) 60(82.2)	4(12.9) 27(87.1)
Surgery Type* Ortho General OB-GYN Urology Plastics ENT	$13(18.1) \\19(26.4) \\15(20.8) \\16(22.2) \\5(6.9) \\4(5.6)$	3(10.0) 9(30.0) 5(16.7) 11(36.7) 1(3.3) 1(3.3)

\*Data not available for all subjects. Missing values: Surgery Type = 1. Statistics presented as Mean  $\pm$  SD or N (column %). p-values: a = t-test, c = Pearson's chi-square test.

Statistical significance was not observed for these comparisons.

# DISCUSSION

- regardless of the choice of grouping.
- No significant differences between confidence level and demographic variables.
- skills, knowledge, and kindness.
- frequent complaints reported by patients.

Comparison (N=42)	P-value
53.2±14.8	0.084 <sup>a</sup>
23(54.8) 19(45.2)	0.79 <sup>c</sup>
24(57.1) 18(42.9)	0.46 <sup>c</sup>
9(21.4) 33(78.6)	0.35 <sup>c</sup>
10(23.8) 10(23.8) 10(23.8) 10(23.8) 5(11.9) 4(9.5) 3(7.1)	0.12 <sup>c</sup>

#### Table 2. A summary of demographic variables by confidence level.

		-	-	
Factor	Total (N=73)	< 10 (N=25)	10 (N=48)	P-value
Age	55.7±14.1	60.1±11.1	53.3±15.0	0.050 <sup>a</sup>
Gender Female Male	39(53.4) 34(46.6)	14(56.0) 11(44.0)	25(52.1) 23(47.9)	0.75 <sup>c</sup>
Marital Status Married Not Married	39(53.4) 34(46.6)	14(56.0) 11(44.0)	25(52.1) 23(47.9)	0.75 <sup>c</sup>
Race Black White	13(17.8) 60(82.2)	5(20.0) 20(80.0)	8(16.7) 40(83.3)	0.72 <sup>c</sup>
Surgery Type* Ortho General OB-GYN Urology Plastics ENT	$13(18.1) \\ 19(26.4) \\ 15(20.8) \\ 16(22.2) \\ 5(6.9) \\ 4(5.6)$	4(16.0) 6(24.0) 5(20.0) 6(24.0) 1(4.0) 3(12.0)	9(19.1) 13(27.7) 10(21.3) 10(21.3) 4(8.5) 1(2.1)	0.61 <sup>c</sup>

\*Data not available for all subjects. Missing values: Surgery Type = 1. Statistics presented as Mean  $\pm$  SD or N (column %).

p-values: a=t-test or c=Pearson's chi-square test.

Those that were less confident were significantly older than those that indicated their confidence level was 10 out of 10 (p=0.050).

• The majority of responses to the confidence and understanding questions were 10, so alternate groupings of the responses (10 vs. <10, and a 4-level variable <8, 8, 9, 10) were considered. Results were quite similar

• There was no significance between groups in respect to confidence and understanding of discharge instructions.

• Participants expressed overwhelming satisfaction with the Phase II recovery RNs abilities to educate them before being discharged home. They stated the RNs ensured their confidence in caring for themselves due to the nurses'

• An incidental finding revealed that post-operative constipation and its subsequent discomfort were the most

### LIMITATIONS

- Single center site, single unit with convenience sampling
- Surgeon practices and patient needs may differ in other surgical settings
- Those who did not participate may have had differing perceptions compared to those who participated participants to take home, may not have been visually available while conducting phone survey

Table 3. The relationship between group and outcome variables.

Factor	Total (N=73)	Intervention $(N=31)$	Comparison (N=42)	P-value	
Post Op Appt*	(11 - 73)	$(\Pi - JI)$		0.99 <sup>d</sup>	
Yes	33(94.3)	16(94.1)	17(94.4)	0.33	
No	2(5.7)	1(5.9)	1(5.6)		
Sought Add				0.13 <sup>d</sup>	
Phone	13(17.8)	8(25.8)	5(11.9)		
Office	1(1.4)	1(3.2)	0(0.0)		
ED	1(1.4)	0(0.0)	1(2.4)		
No	58(79.5)	22(71.0)	36(85.7)		
Sought Add Y/N				0.12 <sup>c</sup>	
Yes	15(20.5)	9(29.0)	6(14.3)		
No	58(79.5)	22(71.0)	36(85.7)		
Confidence	10.0[8.0,10.0]	10.0[9.0,10.0]	10.0[8.0,10.0]	0.66 <sup>b</sup>	
Confidence $< 10$ vs. 10				0.76 <sup>c</sup>	
< 10	25(34.2)	10(32.3)	15(35.7)		
10	48(65.8)	21(67.7)	27(64.3)		
Confidence $< 8, 8, 9$ or 1	.0			0.75 <sup>b</sup>	
< 8	12(16.4)	5(16.1)	7(16.7)		
8	7(9.6)	2(6.5)	5(11.9)		
9	6(8.2)	3(9.7)	3(7.1)		
10	48(65.8)	21(67.7)	27(64.3)	b	
Understandable	10.0[9.0,10.0]	10.0[8.0,10.0]	10.0[9.0,10.0]	0.94 <sup>b</sup>	
Understandable $< 10$ vs.				0.90 <sup>c</sup>	
< 10	30(41.1)	13(41.9)	17(40.5)		
10	43(58.9)	18(58.1)	25(59.5)		
	Understandable <8, 8, 9 or 10				
< 8	8(11.0)	2(6.5)	6(14.3)		
8	10(13.7)	7(22.6)	3(7.1)		
9	12(16.4)	4(12.9)	8(19.0)		
10	43(58.9)	18(58.1)	25(59.5)		

\*Data not available for all subjects. Missing values: Post Op Appt = 38.

Statistics presented as Median [P25, P75] or N (column %). p-values: b=Wilcoxon rank sum test, c=Pearson's chi-square test, d=Fisher's exact test.

Statistical significance was not observed for these comparisons.

# CONCLUSIONS

- Financial need of a full-time RN conducting follow-up phone calls was not supported
- The practice of a RN calling versus an administrative assistant may yield the same results at a cost of less than one full-time RN FTE, as well as administrative assistants making calls and elevating to nurses when concerns are expressed may be a better use of each roles' time
- This information may lead to beneficial information about surgeon practices
- The My Health Confidence Tool, although given to all Developing a collaborative follow-up phone call process may decrease RN workload Participants expressed understanding of SDS instructions due to RNs' skills
  - and knowledge
  - Expand the study to other SDS centers