

The Implementation of a Surgical Site Wound Assessment Tool (SSWAT) for use by Telehealth



Nurses in an Ambulatory Care Cancer Center

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Clinical Problem

- Surgical site wound infection (SSI) cost is \$3.5 to 10 billion annually in US
- Large multi-specialty ambulatory cancer center Average > 80,000+ patient visits annually
- 3 full time telehealth nurses. Average 1500-1700 phone calls, 23 portal inquiries per month in 2016
- Telehealth nurses seeking information to manage patient calls about surgical wounds. No tool in place

Purpose

- Increase knowledge of telehealth nurses in an outpatient oncology unit in assessment and management of post-up surgical wounds using a Surgical Site Wound Assessment Tool (SSWAT)

Objectives

- Develop surgical site wound assessment tool (SSWAT) for assessment, grading and management of SSI and wound complications for use by telehealth nurses
- Develop and conduct an education program on post-operative surgical site wound complications with telehealth nurses
- Educate telehealth nurses on use wound assessment tool (SSWAT)
- Implement use of SSWAT in clinical practice
- Evaluate SSWAT

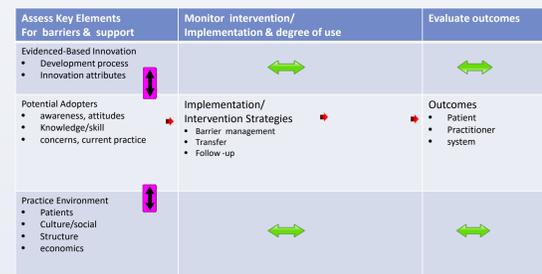
Literature Review

Breen, et al., 2015, p.2	"The ability to capture patient-reported symptom data in real time...allow rapid clinical decision making and interventions to improve patient outcomes...structured symptom assessment tools and the implementation of timely management strategies improve patient physical and emotional outcomes"
Gould, 2012	Discussed available evidence on surgical site infection: wound classification; effect on pts; risk factors, microbial causes, identification, prevention and control. Useful for tool building and teaching
Sevean, Dampier, et al., 2008 Grant, Rockwood & Stennes, 2014	Explored that specialized knowledge and skills are required for nurses to work competently within telehealth framework. Findings demonstrated nurses were receptive to telehealth as delivery mode of care

Theory

Ottawa Model Research Use (OMRU)

Logan and Graham 1998, revised 2004



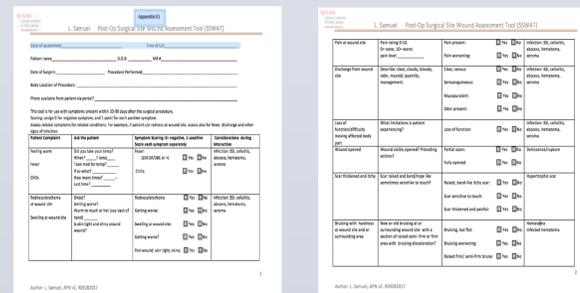
Measures

- Primary measure was knowledge increase for telehealth nurses
- Measured increase knowledge via testing after educational session and utilization of SSWAT
- Face validity established through testing prior to implementation
- Knowledge test administered immediately prior to educational program before initial use of SSWAT and repeated after 3 months use of SSWAT. Will repeat again in 6 months
- Compared pre and post-test scores

Intervention

- Education program on *HealthStream* Platform online
- Implemented use of SSWAT

Procedure SSWAT



- Administered pretest and educational intervention
- Implemented use of SSWAT
- Administered knowledge post-test
- Repeat knowledge post-test schedule for December 2017 and March 2018

Findings

Table 1 Telehealth nurses Socio-demographics characteristics

Question and Actual Responses	Telehealth Responses (N=3)
Licensure: Registered Nurse	3
Nursing education:	
Diploma	1
Associate Degree (AD)	1
Baccalaureate (BSN)	1
Oncology certified: Yes	3
Work status: Full time	3
Overall years of nursing experience:	
10-14 years	2
30+ years	1
Years of Oncology nursing experience:	
1-4 years	1
10-14 years	1
30+ years	1
Years of telehealth nursing experience:	
1-4 years	2
10-14 years	1
Years of direct care to post-op patients (excluding telehealth experience):	
<1 year	1
5-9 years	1
10-14 years	1

Table 2 SSWAT Use by Telehealth Nurses

SSWAT Use	9/2017	10/2017	11/2017-3/2018
Subject 1	1	3	2
Subject 2	4	3	12
Subject 3	6	2	6
Total # tools used	11	8	19

Table 3 Knowledge Test Results

Knowledge	N= 3	Pretest	Posttest 1	Posttest 2
Minimum score		55	55	90
Maximum score		75	80	90
Mean		65	66.7	90
Median		65	65	90
Standard Deviation		10	12.5	0

Table 4 SSWAT Evaluation Survey Responses

Item	Response	Subject s
Overall rating of SSWAT	Very good (2 nd highest rating)	1
	Excellent (highest rating)	2
Overall reaction to SSWAT	Very positive (highest rating)	3
Satisfaction with ease of using SSWAT	Extremely Satisfied (highest rating)	3
Is the SSWAT something needed or not to work with surgical patients	Definitely need (highest rating)	3
Likelihood of recommending SSWAT for continued use	Extremely likely (highest rating)	3
What did you like best about the SSWAT	It helped "organize assessment process of surgical wounds", and "helped me be more thorough in my assessments"	1
What did you like best about the SSWAT	"Ease of use and scoring, very clear and concise, would like to expand to all surgical patients wound assessments"	1

Discussion

- Marginal increase in knowledge could have been limited by small number of subjects, limited initial data collection time and organizational changes
- Telehealth nurses responses on SSWAT use survey demonstrated positive acceptance and value for SSWAT
- Continued use of the SSWAT could potentially provide further knowledge increase for telehealth nurses

Significance to Nursing Practice

- SSWAT use provided workflow independence and time efficiency for telehealth nurses
- Use of SSWAT can minimize delays in patient care and offer earlier time to intervene with real time responses and directions to patients
- Enhanced practice efficiency with improved detailed communication between telehealth nurses and providers regarding patient symptoms

Conclusion and Future Considerations

- Telehealth nurses found the SSWAT useful in practice
- SSWAT can be modified based on feedback and extended to other surgical sub-specialties in the practice
- Continued use of SSWAT offers potential to monitor surgical site wound complications in practice and readmission rates for long term management



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Acknowledgement

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References available upon request