



Structure and Processes of Transfer Centers in the United States

Rachel Adair, MSN, RN, MSRN
Transfer Center/ OHSU



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BACKGROUND

Little research has focused on the nurse's role in the patient transfer process. Transfer Centers originated to offer medical providers a seamless and convenient transition process for patients requiring transfer. Clinical insight during the patient transfer process was identified.

Why is the topic significant for nursing practice/health care?

- The transfer center nurse (TCRN) role has existed in the United States for at least a decade. There is little evidence-based research to support the practice of this role. As an academic quaternary health care center, OHSU has the opportunity to be on the forefront of this research.

PICO(T) QUESTION(s)

What are the structure and functions of patient Transfer Centers in the United States? How can this knowledge apply and support TCRN practice?

- **P** = *Patient population – Any patients needing inpatient admission at the hospital*
- **I** = *Intervention or issue of interest – Quality, Safety, Support of nursing practice*
- **C** = *Comparison intervention or issue of interest – No TCRN baseline data exists.*
- **O** = *Outcome – Evidence-based research for practice for Transfer Center Nurses*
- **T** = *Time frame – 3 months to complete survey and aggregate data*

Evidence Retrieved

(#/Quality per JHNEBP Criteria)

Research Evidence				
Non-experimental	Quasi-experimental	Experimental	Systematic Reviews	Meta-analysis/ Meta-synthesis
8 (Low; good)	15 (Good)	3 (Good; high)	3 (Good)	1 (Very Good)
Non-Research Evidence				
Expert Opinion	Organizational (QI/financial data)	Clinical Practice Guidelines		
<u>Example</u> : 1 (Good)	LOS data	0 (Good)		

- Databases searched: CINAHL, ELSEVIER, WGU library, Scopus
- Key words used: Transfer Center, Transfer Center Nurse, Command Center, Interhospital Transfer
- Limits used (e.g., years, human, age): Data retrieved from the last 5 years.

Evidence Summary

- Best Practices – Standard intake tool/handoff
 - According to Philip et al. (2019), “. . . the presence of duplicated and/or extraneous information, which also occurred in a substantial number of charts, increased the likelihood that these written communications are associated with patient care delays” (para. 19).
 - Smith et al. (2018) found that a modified handoff report for transfer of emergency room patients improved communication, provider satisfaction with the process, and safety.
 - According to Alrajhi and Alsaawi (2019) the Delphi method was an effective way to create a standardized hand-off tool for a specific population.
 - Rosenthal, Doiron, Haynes, Daniels and Li (2017) found that a variety of handoff tools have been created, but no specific type proved to be better than others.

Themes

Safety

“Regarding the written transmission of information, many accepting physicians discussed the common occurrence of patients transferring with records that are incomplete or not helpful” (Rosenthal, Okumura, Hernandez, Li, & Rehm, 2016, para. 19).

Quality

Physicians and patients are both considered clients in the patient transfer process. According to Mohr et al. (2016) a survey of patients and physicians found that almost one third of transfer patients did not feel that they were included in the decision to transfer to an outside hospital or select the destination to transfer to.

ACTION PLAN

Key Steps

- Key stakeholder approval
- PPQ → Develop questionnaire
- IRB protocol
- Information sheet
- Collection of contacts
- IRB approval
- Collect and aggregate data
- Present data

Methods & Design

- 17 Transfer Centers in the PNW Region (defined as northern CA, OR, WA, AK, & Western ID) were invited to participate in the survey. Transfer centers were identified through internet searches for “patient transfer centers”, and department-level contacts with sending hospitals to our quaternary academic center. Participants were included if they had more than one facility located in the PNW region, or a regional medical center in the PNW serving critical access areas (both indicating they have a transfer center within their system).
- The same methods were used with the expansion from a regional to national project with the exception that questions were modified or expanded on.

Response Rate

Initial (regional) response rate = 65%

Current (national) response rate = 5%

COVID 19 Pandemic

- National survey went out on March 10, 2020
- Executive stay at home order in the state of Oregon enacted March 23rd, 2020
- Test on national hospitals systems highlights need for better communication between systems and the interhospital transfer process

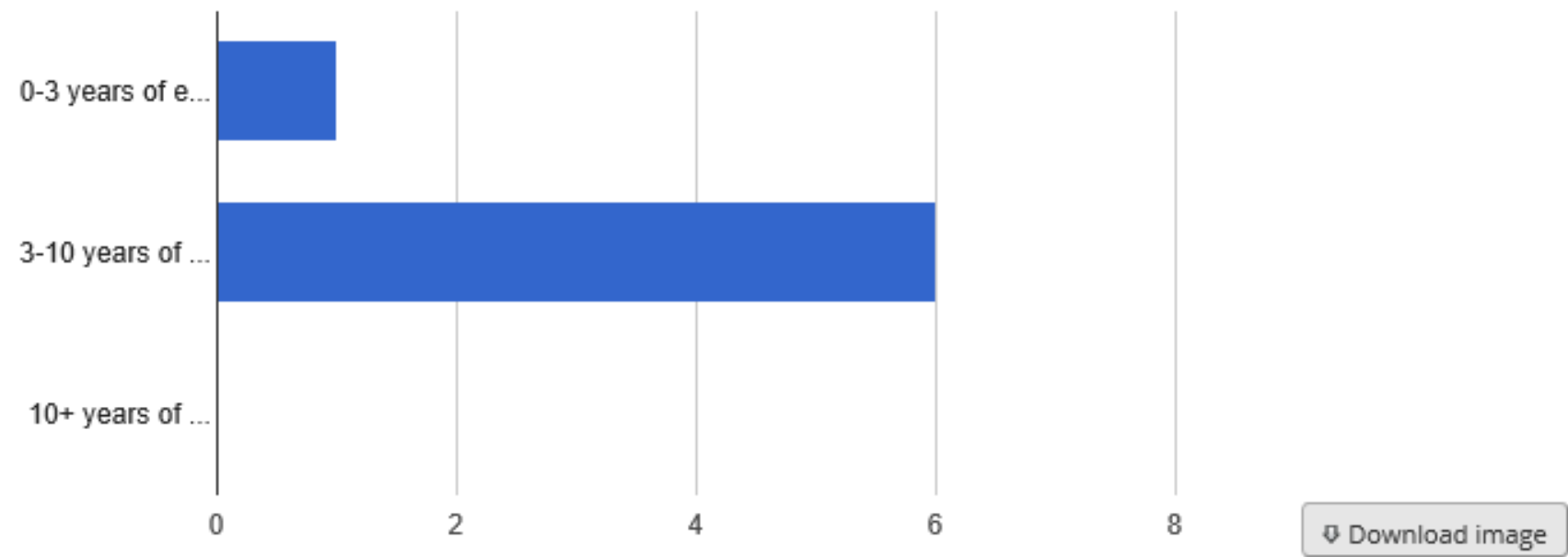
Transfer Center Nurses

- TCRNs are employed in 7 of the 9 hospital systems
- 85% or more of nurses employed in Transfer Centers are involved with ED-ED transfers, trauma transfers, direct admissions, ED-inpatient transfers (adult and pediatric), stroke, and STEMI activations.
- 60% or less of participants report education/training that is required in the following areas:
 - Legal
 - Ethics
 - Triage competencies
 - Evidence-based care guidelines
 - Documentation

What is the average minimin number of years of experience to qualify for the TCRN position at your organization? *(nurse_experience_range)* [Refresh Plot](#) | View as Bar Chart ▾

Total Count (N)	Missing*	Unique
7	160 (95.8%)	2

Counts/frequency: 0-3 years of experience (1, 14.3%), 3-10 years of minimum experience (6, 85.7%), 10+ years of minimum experience (0, 0.0%)



Documentation

What information do you consistently include in documentation for patients who need to be transferred into your system?

- 67% - Imaging, pertinent labs, and current vital signs
- 44% - IV/Line access & code status
- 33% - Length of stay at referring hospital
- 33% - Confirmation from the referring physician that they have educated the patient on the reason for transfer to another facility
- 22% - Psych/social needs

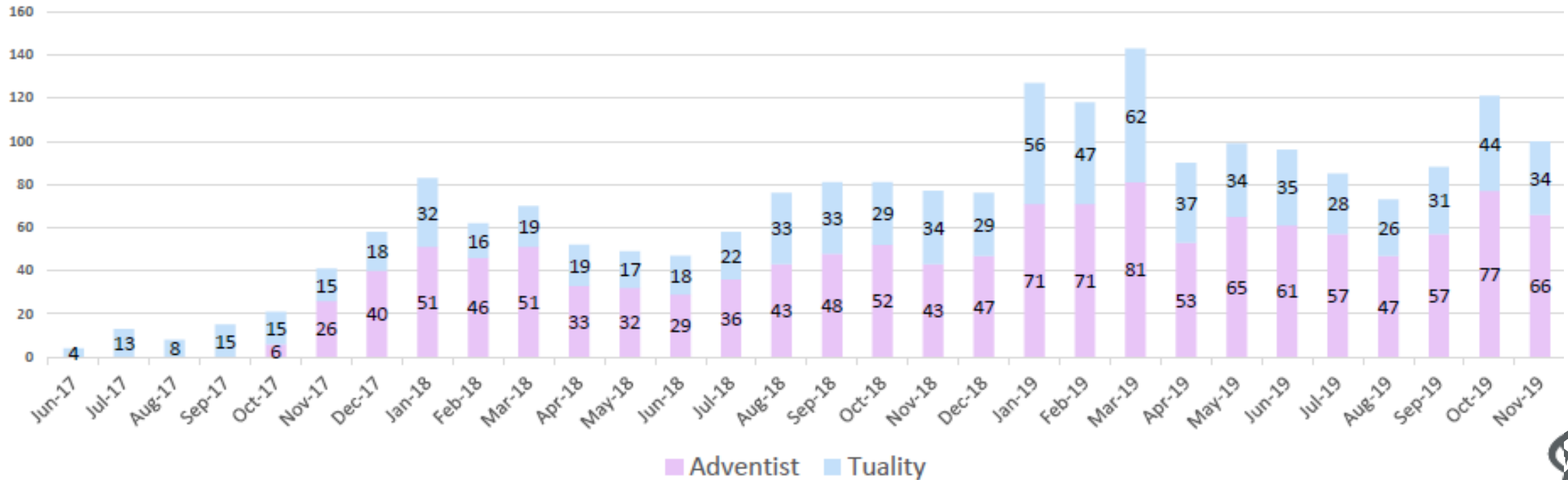
PROJECT METRICS

	Metric	Operational Definition	Source of Data	Data Collection Frequency	Data Aggregation (frequency & level of analysis – unit, pt. pop)	Feedback Plan (to what stakeholders, & when)
PROCESS	Measure Consistent Documentation	Documentation data	Questionnaire	Initial and then 2 weeks	Analysis after 1 month	MC Nurse Manager once participation rate reaches 30%
	Measure Quality Metrics	Documentation data	Questionnaire	Initial and then 2 weeks	Analysis after 1 month	MC Administration once rate reached 30%
OUTCOME	Measure Consistent Documentation	Documentation data	Questionnaire	Initial and then 2 weeks	Analysis after 1 month	Participation rate only 5%
	Measure Quality Metrics	Documentation data	Questionnaire	Initial and then 2 weeks	Analysis after 1 month	Participation only 5%

OHSU Healthcare System Transfer Acceptance

	FY16	FY17	FY18	FY19
Transfers declined due to capacity	579	505	413	136
Transfer acceptance rate	93.5%	94.5%	95.7%	98.6%

Transfers to partner hospital



Potential Return on Investment - TCRNs

Cost of Change		Benefit of Change		
			Baseline	Post
Supplies:	\$ 0			
		One-time reduction (supplies, labor, equipment)	\$ 0	\$0
		Ongoing reductions (supplies)	\$ 0	\$0
Equipment:	\$ 0	Increased revenue (e.g., higher patient volumes = decrease in decline rate)	0 x (2 nights x \$4,000) = 0 Baseline FY18	277x (2 nights x \$4,000) = \$2,216,000 FY19
Labor costs:	\$ EVBF hours	Prevention of the duplication of procedures (IP CT scan)	\$4750 x 60 = \$285,000	0 x (60 x \$4750) = 0
Other costs:	\$ 0	Other	\$ 0	\$0
Subtotal	\$0	Subtotal	\$285,000	\$2,216,000
OVERALL RETURN ON INVESTMENT		\$2,216,000 increased revenue to OHSU system \$285,000 savings to interhospital transfer patients		

Challenges

Identify the main challenges encountered

- Time to obtain contacts
- Maintaining Contacts
- Survey response rate

Describe limitations of project

- Time

IMPLICATIONS FOR PRACTICE

- Research needs to be completed to create a snapshot in time of our national health system's structure and functions
- Research also needs to be completed to help determine which areas can best support nursing practice:
 - Tasks nurses are involved in (ED transfers, interhospital transfers, direct admissions, etc. . .)
 - Types of triage (e.g. trauma, ICU, med/surg, L&D)
 - Documentation (Standard)
 - Experience to support the role (e.g. # of years of experience, type of experience)
 - Tools (e.g. intake tool, technological programs)

CONCLUSION

- TC administration around the U.S. are interested in the data
- Further evidence to support the TCRN role and interhospital transfer process
- Technology
- Looking at hospitals systems more as partnerships

A photograph of a modern glass skyscraper with a curved balcony. The balcony has a white railing and a sign that reads "Questions & Discussion". There are several small trees and outdoor seating on the balcony. The building is set against a backdrop of a city and a bridge.

Questions & Discussion

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