



OUTPATIENT WAITING TIME AND RN JOB SATISFACTION IN AN URGENT CARE CENTER

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BACKGROUND

Background

- Walk-in hospital based urgent care center averaging 80-90 visits daily
- Underserved population
- All patients screened by RNs at entry to clinic using medical screening exam standardized procedures
- Average cycle time for ankle and foot trauma patients needing x-rays was 4 hours
- 60-90 minutes from x-ray order to availability of results
- Ordering x-rays at triage would fold 60-90 minutes into initial medical screening exam
- NDNQI scores in October 2010 were concerning

Definitions

- Cycle Time and dwell time are terms used in ambulatory care to reflect the time of arrival to discharge time
- Ottawa Ankle Rules predict fractures in the ankle and midfoot with an accuracy of 99% and evaluation of the extremity and ordering of x-rays by the RNs during the medical screening exam potentially reduces patient time in the UCC.

PURPOSE/AIM

- Reduce cycle times for patients with traumatic ankle and foot injuries
- Expand RN skill set
- Increase RN job satisfaction

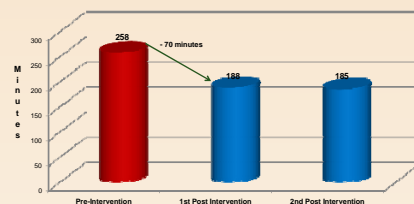
MATERIALS AND METHODS

Methods

- The RN staff was educated to incorporate the OAR into the Medical Screening Exam (MSE) by the lead nurse practitioner using individual teaching sessions and multi-media training materials.
- A provider determines diagnosis and disposition of the patient after x-ray results are available.
- Baseline cycle time data was obtained by chart review in January 2011 with subsequent chart reviews completed post intervention in April 2011.
- RNs skills were documented by a competency checklist.
- Qualitative surveys were conducted of the RNs and providers to determine their satisfaction with the practice change.
- Materials
 - Ottawa Ankle Rule Posters
 - Web-based videos
 - Policy and Procedure developed
 - Competency checklist completed for each RN

MEASUREMENTS AND RESULTS

- Average dwell time decreased from 258 min to 188 min
- Second post intervention data reaffirmed effectiveness of the intervention
- Qualitative Provider felt that all x-rays ordered were appropriately
- RNs felt empowered with new skill set



OTTAWA ANKLE RULES For Ankle Injury Radiography

LATERAL VIEW

MEDIAL VIEW

a) An ankle x-ray series is only required if there is any pain in malleolar zone and any of these findings:
 1. bone tenderness at A
 OR
 2. bone tenderness at B
 3. inability to bear weight both immediately and in ED

b) A foot x-ray series is only required if there is any pain in midfoot zone and any of these findings:
 1. bone tenderness at C
 OR
 2. bone tenderness at D
 OR
 3. inability to bear weight both immediately and in ED

RECOMMENDATIONS

Apply the Ottawa Ankle Rules accurately:
 • palpate the entire distal 5 cm of the tibia and fibula
 • do not neglect the importance of medial malleolar tenderness
 • do not use for patients under age 18

Clinical judgement should prevail over the rules if the patient:
 • is intoxicated or uncooperative
 • has other distracting painful injuries
 • has diminished sensation in the legs
 • has gross swelling which prevents palpation of malleolar bone tenderness

Give written instructions and encourage follow-up in 5 to 7 days if pain and ability to walk are not better

Shank H, Wainright RD, Greenberg CH, et al. Implementation of the Ottawa Ankle Rules. JAMA 1996; 277:827-833.

CONCLUSIONS

Discussion

The substantial 70 minute reduction is motivation to continue both project implementation and data collection. Replication in other outpatient units and the emergency department is being considered. A procedure may need to be developed if patients with negative films leave the UCC before being evaluated by a provider.

Implications/Conclusions

Expedited patient access to services, registered nurse satisfaction, and competency are reasons for project expansion. The RNs work to their scope of practice and providers use their time more appropriately and efficiently. Improvement in the NDNQI survey of RN job satisfaction is anticipated in 2012. Without collocated radiology services, implementation of the OAR earlier in the UCC visit improves both cycle time and satisfaction for the staff. Further reduction in dwell time may be possible by using the Ottawa rules to evaluate other extremity injuries.

BIBLIOGRAPHY

1. Heyworth, J. (2003) Ottawa ankle rules for the injured ankle: Useful clinical rules save on radiographs and need to be used widely. *BMJ*, 326: 405-6
2. Judd, D.B and Kim, D.H(2002). Foot Fractures Frequently Misdiagnosed as Ankle Sprains. *American Family Physician*, 66(5): 785-794
3. Milne, L (1996). Ottawa Ankle Decision Rules. *Western Journal of Medicine*. 164(1): 67
4. Verma et al. (1997). Clinical application of the Ottawa ankle rules for the use of radiography in acute ankle injuries: an independent site assessment. *American Journal of Roentgenology*, 169:825-7
5. You Tube. (2008) Ottawa Ankle rules by St Joseph's Family Medicine Residency. Uploaded by [StJoesFamilyCare](#). Retrieved from <http://www.youtube.com/watch?v=mXZdhHM7m0Q>
6. You Tube. (2010) ER 08x03 Ottawa ankle rules. Retrieved from <http://www.youtube.com/watch?v=fhaZ6eTqIU8&feature=related>
7. You Tube. (2010) OAR with Outtakes. Retrieved from <http://www.youtube.com/watch?v=Lldl-9Jwv1Q&feature=related>
8. You Tube. (2009) Ankle Exam Uploaded by [TexasChildrensVideo](#). Retrieved from <http://www.youtube.com/watch?v=5uabIQfMP0&playnext=1&list=PL65ED9EEC1A27B743>