

**2016**

# Foot Care pilot project initiated at Abbotsford Regional Hospital (ARH)

**When:** Oct 2013

## **Patient Population:**

Haemodialysis (HD) and  
Peritoneal dialysis (PD)

## **Goal:**



amputations  
hospitalizations  
mortality



## ACCOMPLISHMENTS TO DATE

- Developed and implemented an R.N. foot assessment screening tool
- Implemented:
  - Regular foot assessments:  
“Socks Off Week”, every 6 weeks
  - Regular podiatric intervention:
    - FREE weekly clinics (most cannot afford)
    - Held on dialysis unit to accommodate pts with transportation issues



## 60 SECOND NEPHROLOGY / 6 WEEK FOOT SCREEN



NUAS105768A

NEW: Apr 9/14

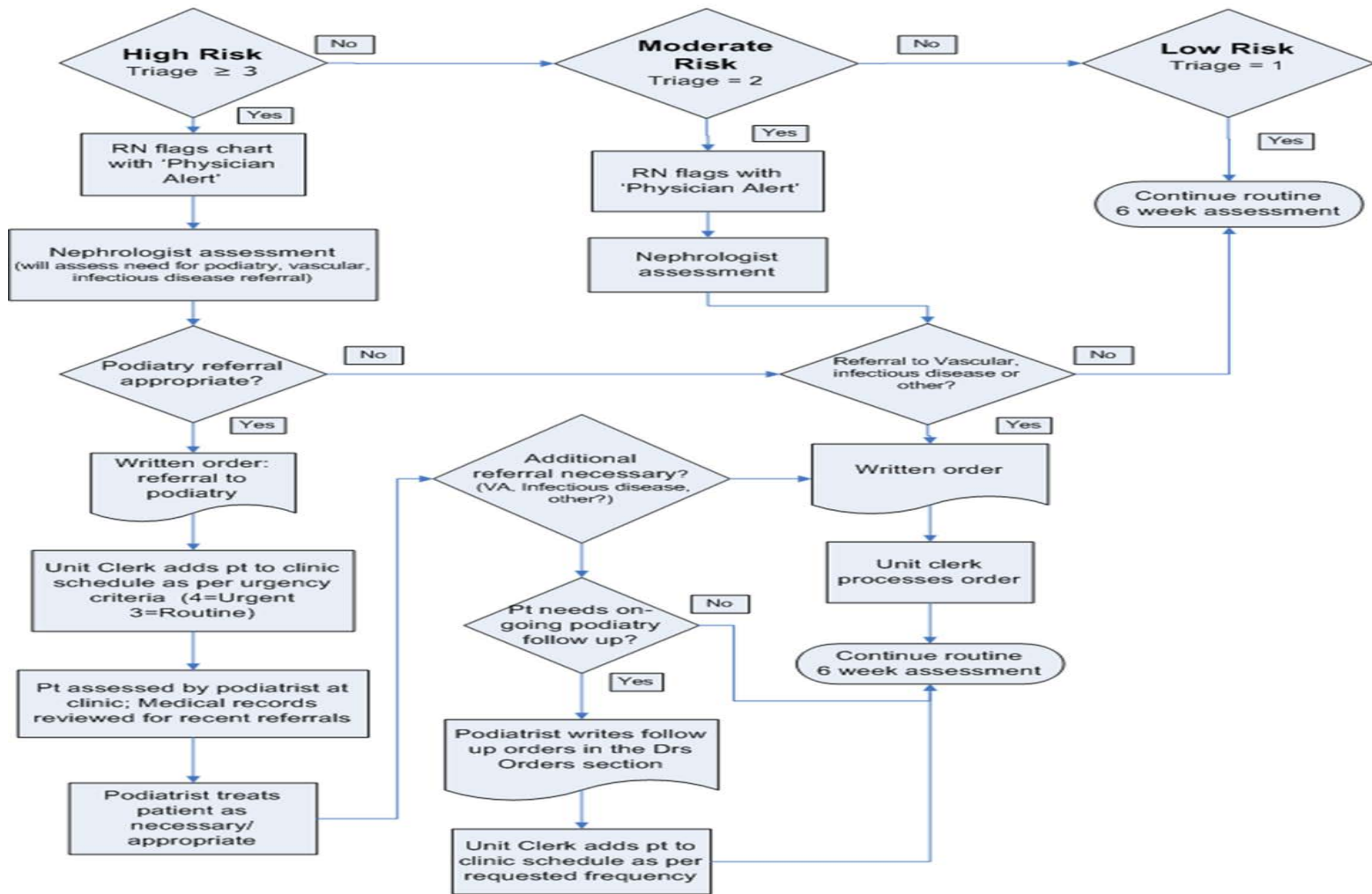
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### Foot Assessment Score Triage Legend:

- 1 = High risk for foot ulceration. Monitor Q 6 weeks
- 2 = Potential referral to vascular surgeon
- 3 = Routine podiatry referral
- 4 = Urgent podiatry referral

	SCORE	SCORE	Nurse to Check if Appropriate
			<b>Recommended Orders</b>
0 = No Diabetes 1 = Diabetes			<input type="checkbox"/> A1C greater than 7 - Optimize Glycemic Control
0 = No Peripheral Vascular Disease 1 = Peripheral Vascular Disease			
0 = No Previous Amputation 1 = Known Previous Amputation			1 = <input type="checkbox"/> High Risk patient, monitor foot every 6 weeks
	L Foot	R Foot	<b>Recommended Orders</b>
<b>1. SKIN</b> 0 = Intact and healthy 1 = Dry with fungus or light callus 3 = Heavy Callus Build-up 4 = Open ulceration/history of previous ulcer			3 = <input type="checkbox"/> Podiatry referral - routine 4 = <input type="checkbox"/> Urgent Podiatry referral
<b>2. TEMPERATURE</b> 0 = Warm to touch 1 = Hot to touch 2 = Cold to Touch			1 = <input type="checkbox"/> Assess for possible infection, inform MD ASAP for additional orders 2 = <input type="checkbox"/> Referral to vascular surgeon
<b>3. ERYTHEMA</b> 0 = No Redness 2 = Redness			2 = <input type="checkbox"/> Referral to vascular surgeon
<b>4. NAILS</b> 0 = Well-kept 3 = Unkept and ragged, thick 4 = Bacterial infection and/or ingrown toenails			3 = <input type="checkbox"/> Podiatry referral - routine 4 = <input type="checkbox"/> Urgent Podiatry referral
<b>5. DEFORMITY</b> 0 = No deformity 1 = Mild or major deformity			1 = <input type="checkbox"/> High risk for skin breakdown, monitor Q 6 weeks
<b>6. DORSALIS PEDAL PULSES</b> 0 = Present 2 = Absent			2 = <input type="checkbox"/> Referral to vascular surgeon
<b>7. FOOTWEAR</b> 0 = Appropriate 1 = Inappropriate			1 = <input type="checkbox"/> Discuss with pt appropriate footwear
<b>8. SENSATION</b> 1 = Are your feet ever numb? 1 = Do they ever tingle?			
<b>Comments:</b>			
<b>RN Print Name:</b>		<b>RN Signature:</b>	<b>Date:</b>

**Routine Foot Care Assessment & Triage by RN (q6 weeks)**



# Results – Year 1

ARH HD+PD	Pre Intervention (N=190)	Post Intervention (N=183)
<b>Amputation rate</b> (# <u>patients</u> with amp event / total pts)	5 (2.6%)	3 (1.6%)
<b>Average Length of Stay</b> (Amputation surgery)	87.5	32.8
<b>Average Length of Stay</b> (LL Infection + PVD)	18.6	31.1
<b>Total Hospital Days</b> (Amp, LL Infection, PVD)	704	477
<b>Hospital Days/person</b> (Amp, LL Infection, PVD)	3.7	2.6

# Preliminary Results – Year 1+2

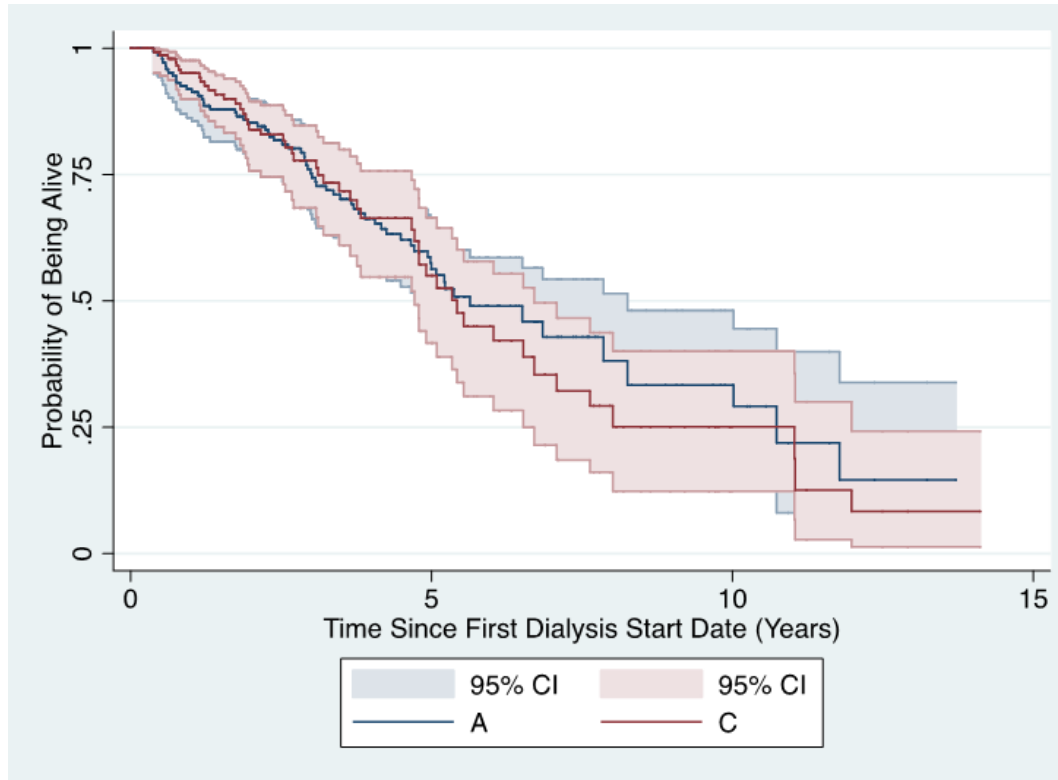
ARH HD+PD	Pre Intervention (N=248)	Post Intervention (N=278)
Dialysis Vintage > 3 years n (%)	91 (37%)	125 (45%)
Amputation rate (# <u>patients</u> with amp event / total pts)	8 (3.2%)	14 (5.0%)
Average Length of Stay (Amputation surgery)	106.1	45.0
Mean Days spent in hospital due to amputations - per year on dialysis (adjusted for time on dialysis)	3.3	3.1
Average Length of Stay (LL Infection + PVD)	21.3	25.9

## Year 1 Mortality

	ARH Pre Intervention	RCH + SMH Post	ARH Post Intervention
N=	190	600	183
Event data end date	30-Nov-13	30-Nov-14	
# Patients Deceased on or before event data end date	34	105	26
<b>Rate</b>	<b>17.9%</b>	<b>17.5%</b>	<b>14.2%</b>



Kaplan-Meier Survival Probabilities by Time Since First Dialysis Start Date and Group, A vs. C  
(p-value = 0.65, log rank test)



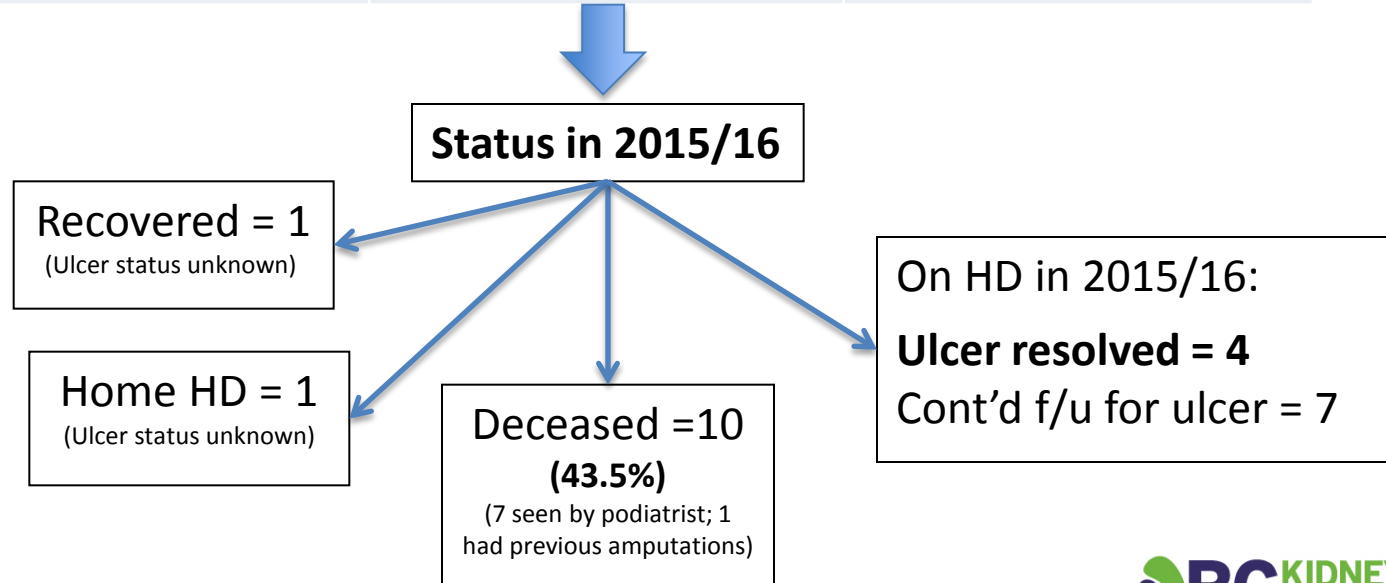
A= Intervention

C=Pre intervention

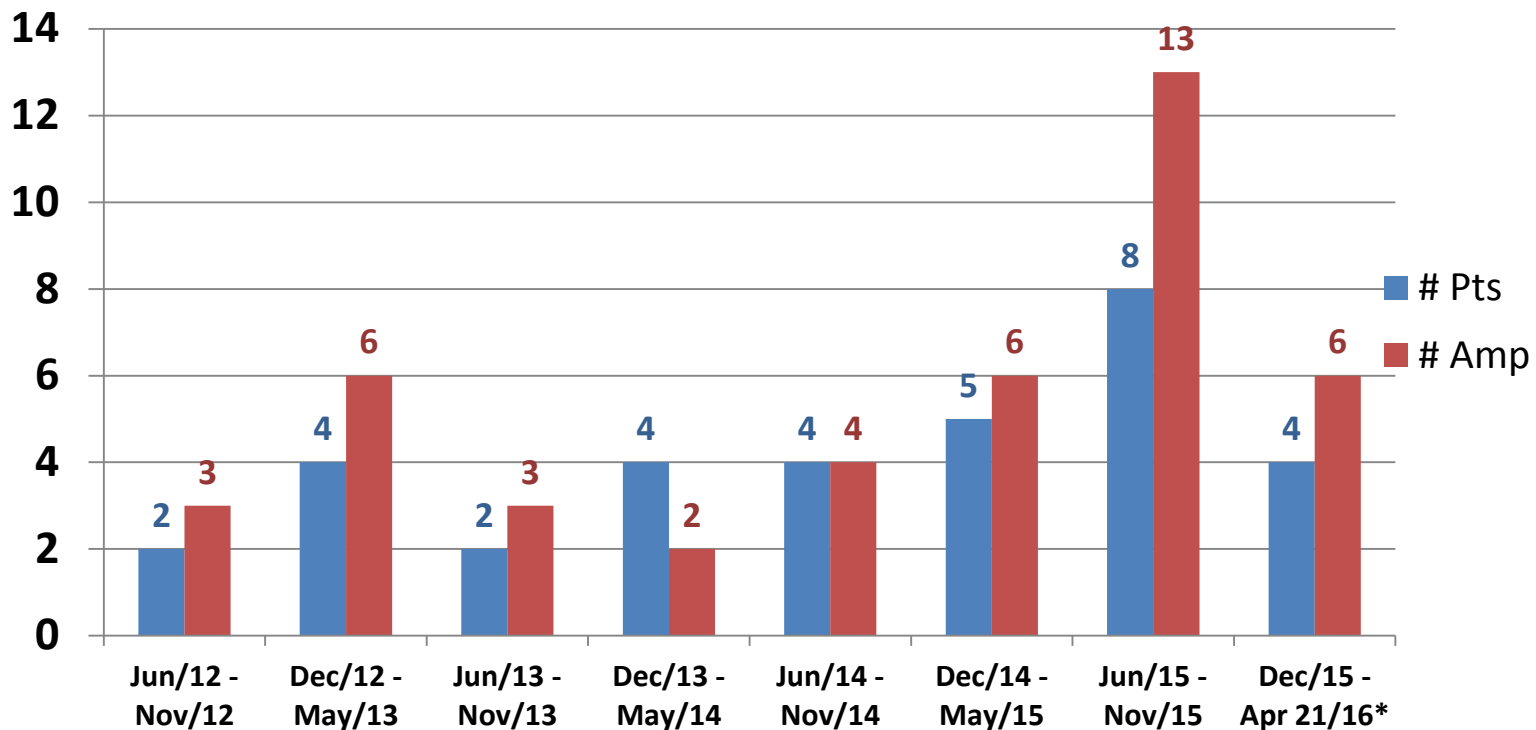
# ARH HD SCREENING ASSESSMENTS

## Review of Patients with Ulcer

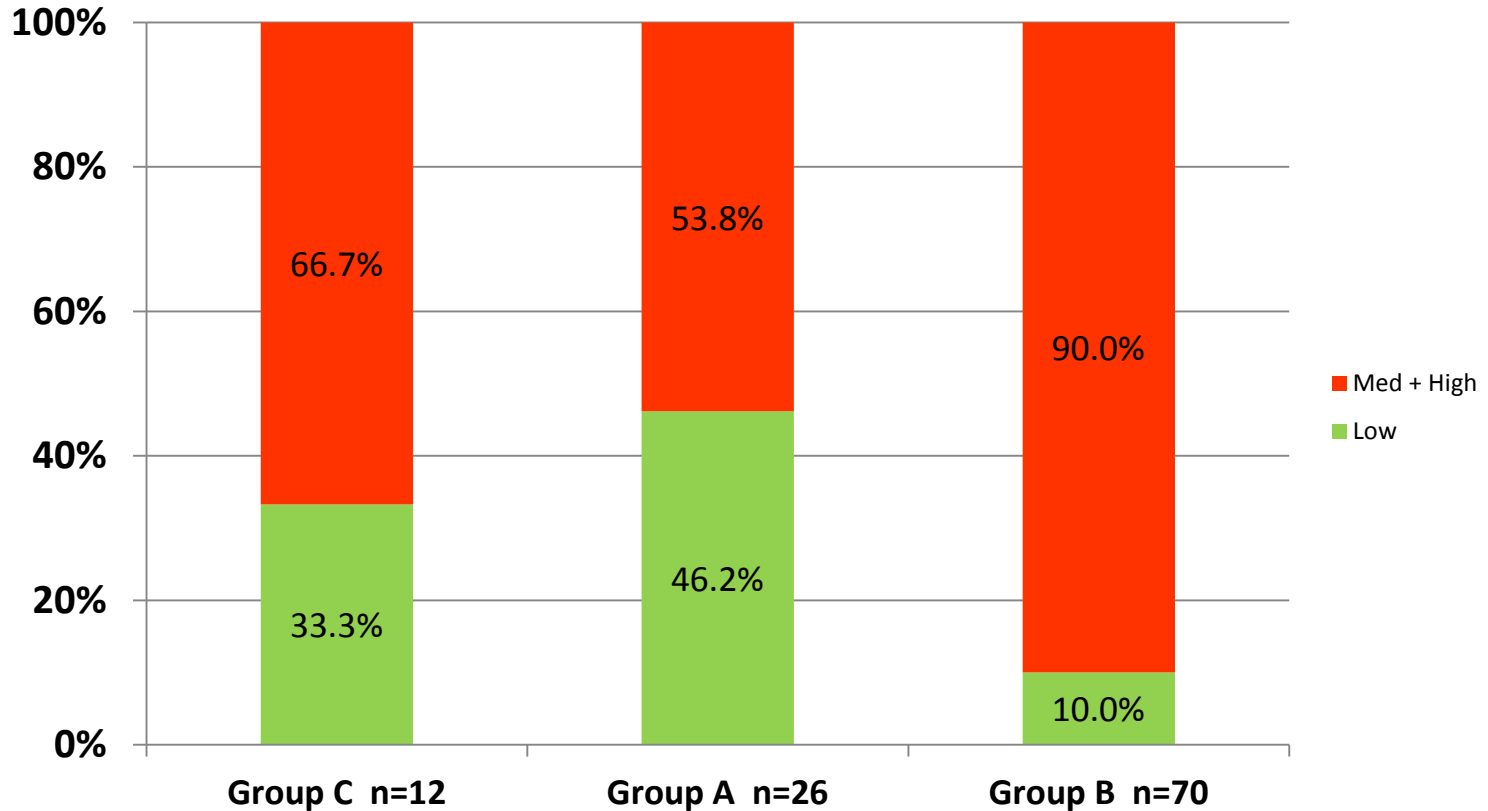
	Sep 2014 – Aug 2015	Sep 2015 – Aug 2016
Total Screenings	654	769
# Pts with Foot Ulcer	23	21



## # of ARH patients with an Amputation



## Major vs. Minor Amputations (Year 1+2)



ARH Pre intervention

ARH Post intervention

Control-SMH/RCH



## Less than optimal results. Why?

- Detection too late?
- Small sample size; less statistical significance?
- Dialysis vintage?
- Break in protocol (April-Sept 2015-podiatry 2 x's per month (vs. weekly)
- Acuity in hospital too great to make a difference?
- Missed foot assessments? (only 80% average. Needs to be 100%)



Questions?