



# Tools of the Trade

**Utilize Every Tool in Your EMR Toolbox To Maximize  
Chronic Disease Management**

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# Presenter Disclosure

- **Presenter:** Leigh Caplan
- **Relationships with commercial interests:**
  - **Diabetes Nurse Educator Advisory Board:**
    - Eli Lilly Canada Inc.
    - Abbott Diabetes Care
    - Novo Nordisk Canada Inc.
    - Dexcom Canada
    - Ascensia Diabetes Care
  - **Speaker:**
    - Becton Dickenson Canada Inc.
    - Sanofi
    - Abbott Diabetes Care
    - Lifescan Canada



# Presenter Disclosure

- **Presenter:** Andrea Payne
- **Relationships with commercial interests:**
  - None



# Presenter Disclosure

- **Presenter:** Melissa Wynter
- **Relationships with commercial interests:**
  - None



# Disclosure of Commercial Support

- No Commercial Support
- Potential for conflict(s) of interest:
  - Telus Health owns, develops, licenses, distributes and benefits from the sale of a product that will be discussed in this program: Practice Solutions Software



# Mitigating Potential Bias

- Content of this presentation has been reviewed by a panel of physician and nurse peers to ensure that it remains unbiased and has no commercial representation



# Objectives

- 1) *Team*: Recognize key assets in choosing members for a Quality Improvement project team.
- 2) *Tools*: Utilize the tools in your EMR toolbox to maximize practice efficiency and quality of care in chronic disease management
- 3) *Buy-in*: Importance of buy-in for successful implementation and adoption



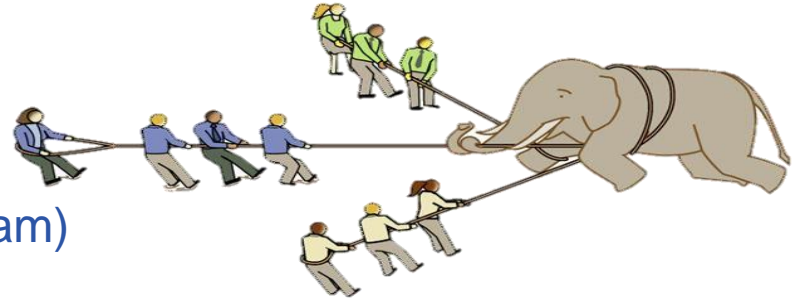
# Background

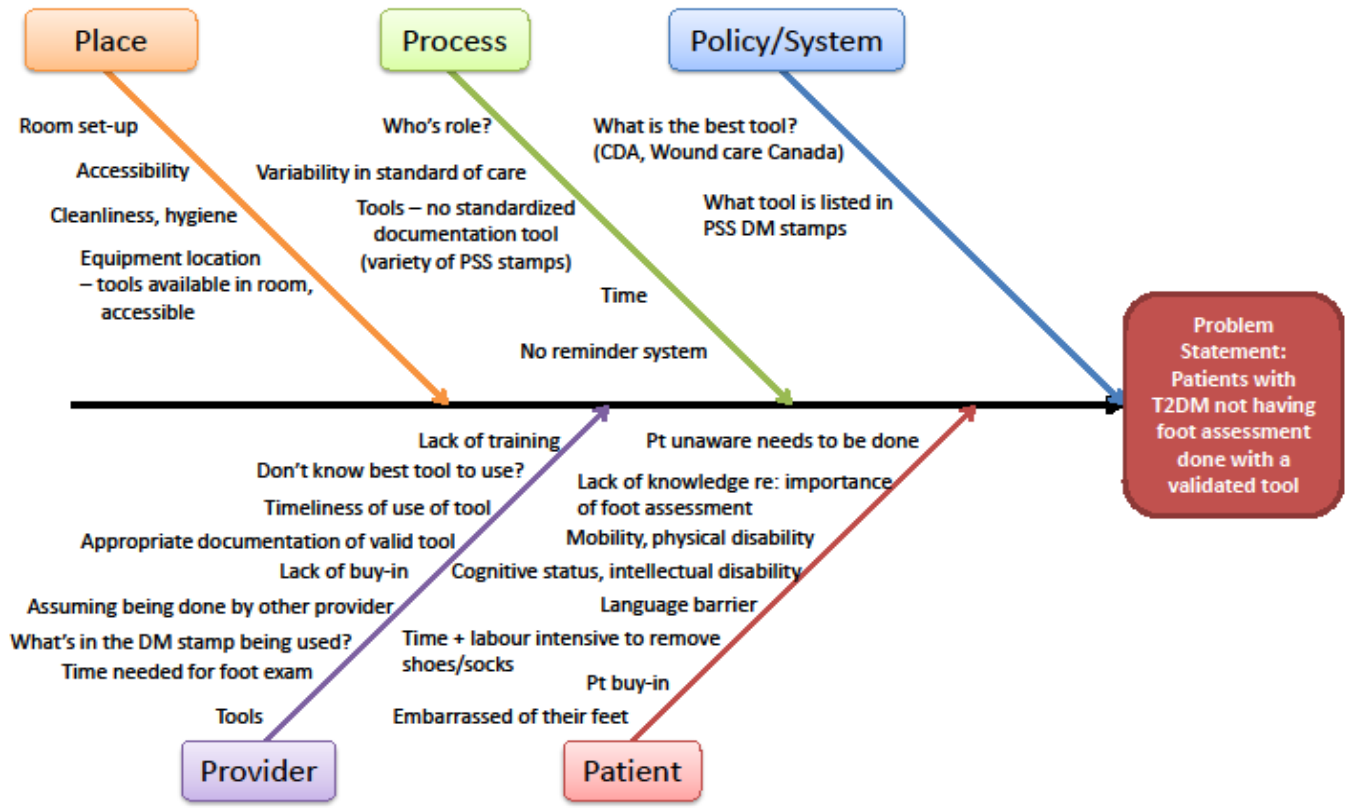
- Foot complications are a major cause of morbidity and mortality in people with diabetes and contribute to an increased burden on the health care system<sup>1</sup>
- In Canada, only 50% of patients with type 2 diabetes (T2DM) have a foot assessment done annually<sup>2,3</sup>
- Our Family Health Team (FHT) had an estimated 40% completion with varying documentation
- Patients receiving an annual foot assessment with a validated evidence-based tool is an important component in the prevention of secondary complications and overall diabetes care<sup>4</sup>

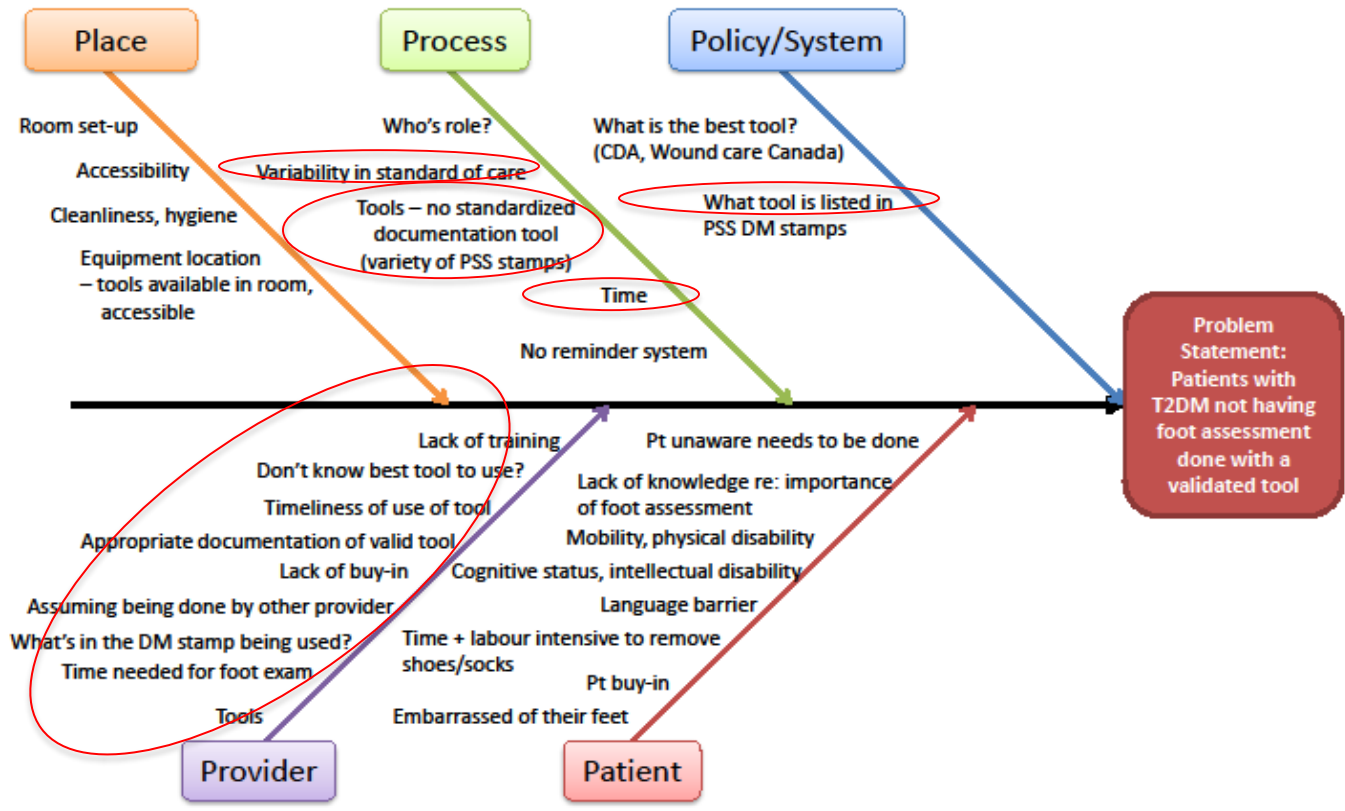


# Background: Evidence-based tool

- *Inlow's 60-second Diabetic Foot Screen (2018)*<sup>4</sup>
- Clinician hesitancy
  - Bulky
  - Timely
  - Not user-friendly (see *Ishikawa* diagram)
- Need for buy-in
- Inconsistencies with DM visits
  - Needed more than just foot assessment tool
  - Needed right team to tackle/implement/adoption





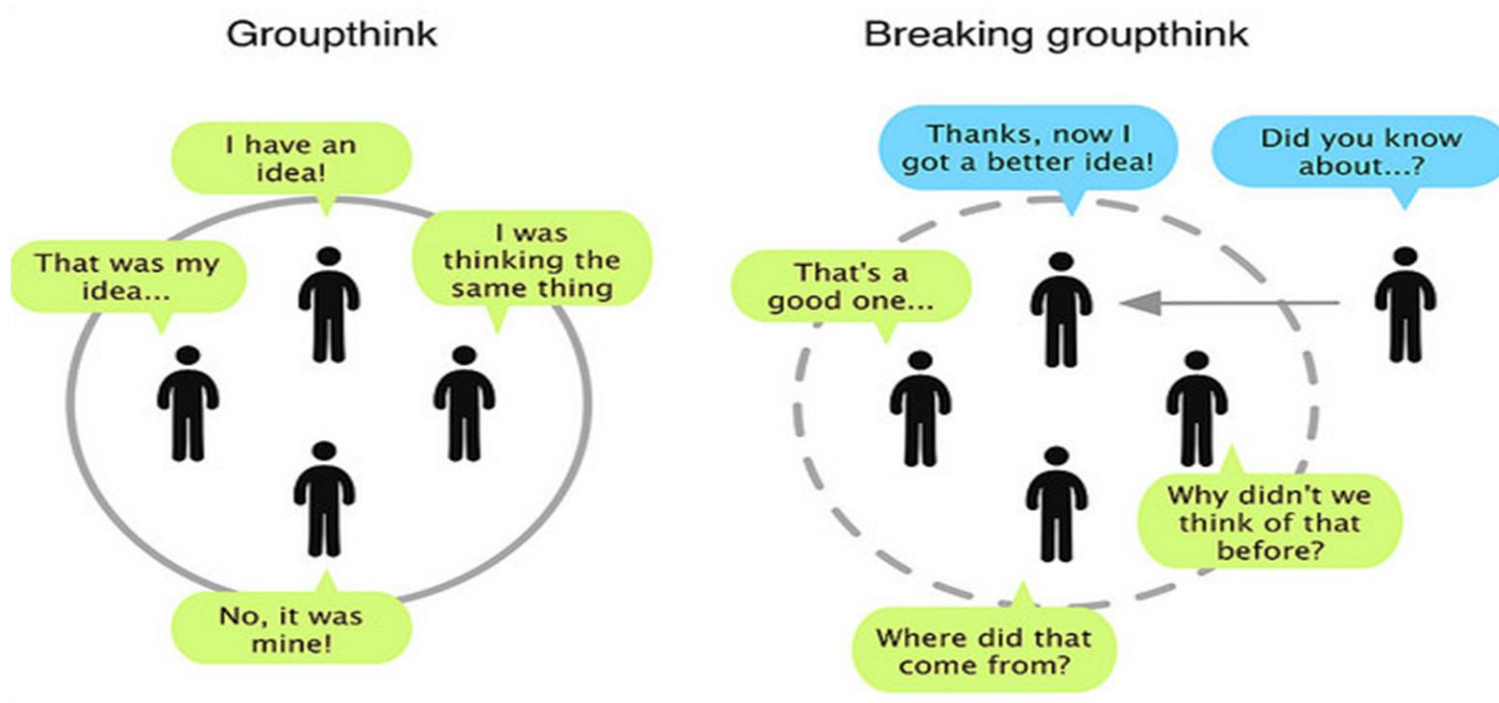




# Team

- Who wanted to be on the team?
- IT, Clinicians (Physicians, Nurses, NP, Dietitians), Admin, Sundec (Diabetes Education Team)
- Champions:
  - MD – MD advocacy
  - Nurse champion in each sub-team (experts, education)
  - Team Leads (clinic adoption/education/input)
- Quality Improvement Team - everyone was involved, had input, took ownership, advocate
- Quality of Care Committee - kept us on track, HQO/QIP submissions
- Curbed Group Think!!!! – Group think kills collaboration.

# Curbed Group Think!!!!







# Tools

- Introducing team to new tool options
  - You don't know what you don't know!
- Maximize practice efficiency
  - Encounter assistants vs chart note templates (stamps) vs custom forms
  - Toolbars
- Quality of care
  - Evidence-based tool → Adapting the *Inlow*
  - Feedback (staff and patients)

# Validated Tool for foot assessment<sup>4</sup>

## HOW TO USE

### Inlow's 60-second Diabetic Foot Screen



FOR THE ASSESSMENT AND MANAGEMENT OF THE DIABETIC FOOT

<b>Patient Name:</b>	<b>Clinician Signature:</b>
<b>ID number:</b>	<b>Date:</b>

In order to use this tool efficiently and for best patient outcomes, complete the following three steps:

#### ► Step 1: Complete an Assessment of the Left and Right Feet

**Instructions:** Assess both feet using the four parameters identified within Inlow's 60-second Diabetic Foot Screen<sup>1</sup> to identify clinical indicators and/or care deficits. Once each parameter has been assessed move on to Steps 2 and 3.

Inlow's 60-second Diabetic Foot Screen		
LEFT FOOT		RIGHT FOOT
<b>1. Assess for Skin and Nail Changes</b>	<b>Recommendations and Referrals*</b>	<b>1. Assess for Skin and Nail Changes</b>
<b>Skin</b> <input type="checkbox"/> Intact and healthy <input type="checkbox"/> Dry with fungus or light callus <input type="checkbox"/> Heavy callus build up <input type="checkbox"/> Prior ulceration or amputation <input type="checkbox"/> Existing ulceration (± warmth and erythema) <b>Nails</b> <input type="checkbox"/> Well-groomed and appropriate length <input type="checkbox"/> Unkempt and ragged <input type="checkbox"/> Thick, damaged, or infected		<b>Skin</b> <input type="checkbox"/> Intact and healthy <input type="checkbox"/> Dry with fungus or light callus <input type="checkbox"/> Heavy callus build up <input type="checkbox"/> Prior ulceration or amputation <input type="checkbox"/> Existing ulceration (± warmth and erythema) <b>Nails</b> <input type="checkbox"/> Well-groomed and appropriate length <input type="checkbox"/> Unkempt and ragged <input type="checkbox"/> Thick, damaged, or infected
<b>2. Assess for Peripheral Neuropathy/ Loss of Protective Sensation (LOPS)</b>	<b>Recommendations and Referrals*</b>	<b>2. Assess for Peripheral Neuropathy/ Loss of Protective Sensation (LOPS)</b>
<b>Sensation – monofilament testing:</b> <input type="checkbox"/> No: peripheral neuropathy was not detected (sensation was present at all sites) <input type="checkbox"/> Yes: peripheral neuropathy detected (sensation was missing at one or more sites) <b>Sensation – ask 4 questions:</b> - Are your feet ever numb? - Do they ever tingle? - Do they ever burn? - Do they ever feel like Insects are crawling on them? <input type="checkbox"/> No to all 4 questions <input type="checkbox"/> Yes to any of the questions		<b>Sensation – monofilament testing:</b> <input type="checkbox"/> No: peripheral neuropathy was not detected (sensation was present at all sites) <input type="checkbox"/> Yes: peripheral neuropathy detected (sensation was missing at one or more sites) <b>Sensation – ask 4 questions:</b> - Are your feet ever numb? - Do they ever tingle? - Do they ever burn? - Do they ever feel like Insects are crawling on them? <input type="checkbox"/> No to all 4 questions <input type="checkbox"/> Yes to any of the questions
<b>3. Assess for Peripheral Arterial Disease (PAD)</b>	<b>Recommendations and Referrals*</b>	<b>3. Assess for Peripheral Arterial Disease (PAD)</b>
<b>Pedal Pulses:</b> <input type="checkbox"/> Present <input type="checkbox"/> Absent <b>Dependent rubor:</b> <input type="checkbox"/> No <input type="checkbox"/> Yes <b>Cool foot:</b> <input type="checkbox"/> No <input type="checkbox"/> Yes		<b>Pedal Pulses:</b> <input type="checkbox"/> Present <input type="checkbox"/> Absent <b>Dependent rubor:</b> <input type="checkbox"/> No <input type="checkbox"/> Yes <b>Cool foot:</b> <input type="checkbox"/> No <input type="checkbox"/> Yes
<b>4. Assess for Bony Deformity (and Footwear)</b>	<b>Recommendations and Referrals*</b>	<b>4. Assess for Bony Deformity (and Footwear)</b>
<b>Deformity:</b> <input type="checkbox"/> No deformity <input type="checkbox"/> Deformity (i.e. dropped MTH or bunion, chronic Charcot changes) <input type="checkbox"/> Amputation <input type="checkbox"/> Acute Charcot (± warmth and erythema) <b>Range of Motion:</b>		<b>Deformity:</b> <input type="checkbox"/> No deformity <input type="checkbox"/> Deformity (i.e. dropped MTH or bunion, chronic Charcot changes) <input type="checkbox"/> Amputation <input type="checkbox"/> Acute Charcot (± warmth and erythema) <b>Range of Motion:</b>





# Modified *Inlow*<sup>4</sup>

## Foot Examination:

**Skin**       Bilaterally Intact and Normal       Abnormal       Not applicable

**Nails**       Bilaterally Intact and Normal       Abnormal       Not applicable

### Sensation (Monofilament- 10 sites)

Peripheral neuropathy detected       No       Yes

### PAD

Pedal pulses:       Present bilaterally       Absent

Pallor present       Left       Right       Neither

Cool foot present       Left       Right       Neither

Hot foot present       Left       Right       Neither

**Deformity**       No deformity       Deformity

**Footwear:**       Appropriate       Inappropriate       Orthotics



# Expanded, if all abnormal

## Foot Examination:

**Skin**      Bilaterally Intact and Normal      Abnormal      Not applicable

Dry with fungus or light callus      Left      Right  
Heavy callus build up      Left      Right  
Existing ulceration (+/- warmth)      Left      Right

**Nails**      Bilaterally Intact and Normal      Abnormal      Not applicable

Unkept and ragged      Left      Right  
Thick, damaged or infected      Left      Right

### Sensation (Monofilament- 10 sites)

Peripheral neuropathy detected      No      Yes  
  
 Left  
 Right

### PAD

Pedal pulses:      Present bilaterally      Absent  
  
 Left  
 Right

Pallor present      Left      Right      Neither  
Cool foot present      Left      Right      Neither  
Hot foot present      Left      Right      Neither

**Deformity**      No deformity      Deformity

Deformity (amputation, hammer, claw toes, bunions)      Left      Right



# DM Visit Stamp

## DM Visit

S:

Medications (tolerance, s/e):

Home Glucose Monitoring: «N/A»

Hypoglycemic symptoms, if on medications: «yes»«no»«N/A»

Foot concerns:

Hx of foot ulcers/infections: «yes»«no»

Foot numbness/tingling/burning: «yes»«no»

Foot care: «yes»«no»

Exercise: «yes» «no»

Smoking: «never smoked»«past smoker»«current smoker»«● pack years»

Alcohol:

Screening for Secondary Complications of DM (most recent visit):

Ophthalmology =

Optometry =

Podiatry =

Nephrology =

SUNDEC =

Most Recent Labs:

HbA1C = 0.075 ( Apr 1, 2019 )

Urine MACR = never done ( ) Goal: <2.0 men, <2.8 women

Creatinine = never done ( )

Total Cholesterol = never done ( )

TG = never done ( )

LDL = never done ( ) Goal: <2.0

HDL = never done ( )

O/E:

Wt: Ht: BMI:

«Tru» BP: (Goal: <130/80)

Foot exam (*click **Foot Exam** from DM toolbar*): «N/A»«done today, see form below»«declined»

A/P: «Type 2 Diabetes,»«Type 1 Diabetes,» «at target» «not at target»

Medication Adjustment(s): «none»

Lab Requisition: «to be done today» «to be done prior to next visit» «N/A»

Self management recommendations:

Diet:

Exercise: «Goal = aerobic >150 mins/wk, resistance 2-3x/wk» «Exercise Rx given»

Smoking cessation (if applicable): «N/A»

Referrals:

«SUNDEC (referral form in toolbar, message CP)»

«Other - »

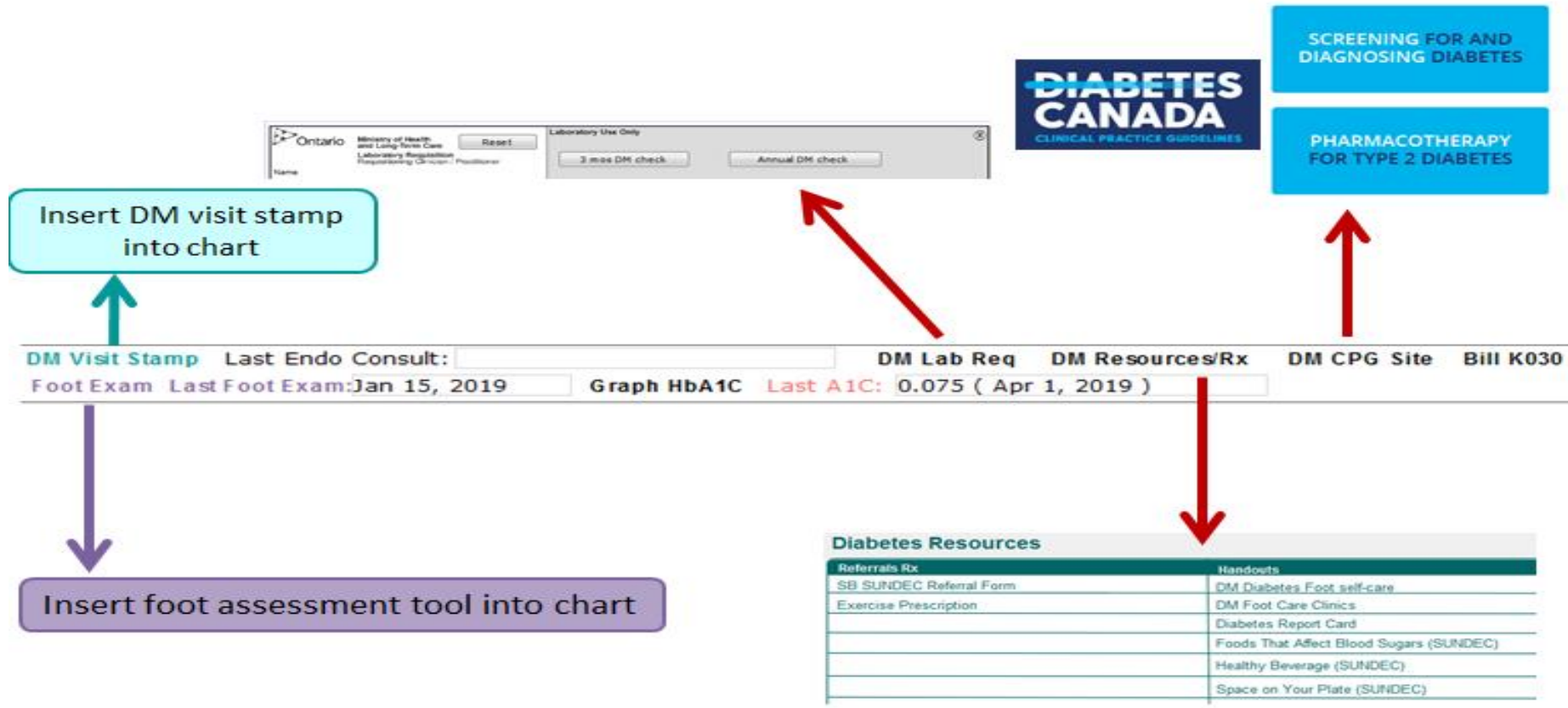
Resources: «Foot care patient checklist handout given» «Foot care clinics handout given»

RTC 3 months





# DM Toolbar



Insert DM visit stamp into chart

Insert foot assessment tool into chart



SCREENING FOR AND DIAGNOSING DIABETES

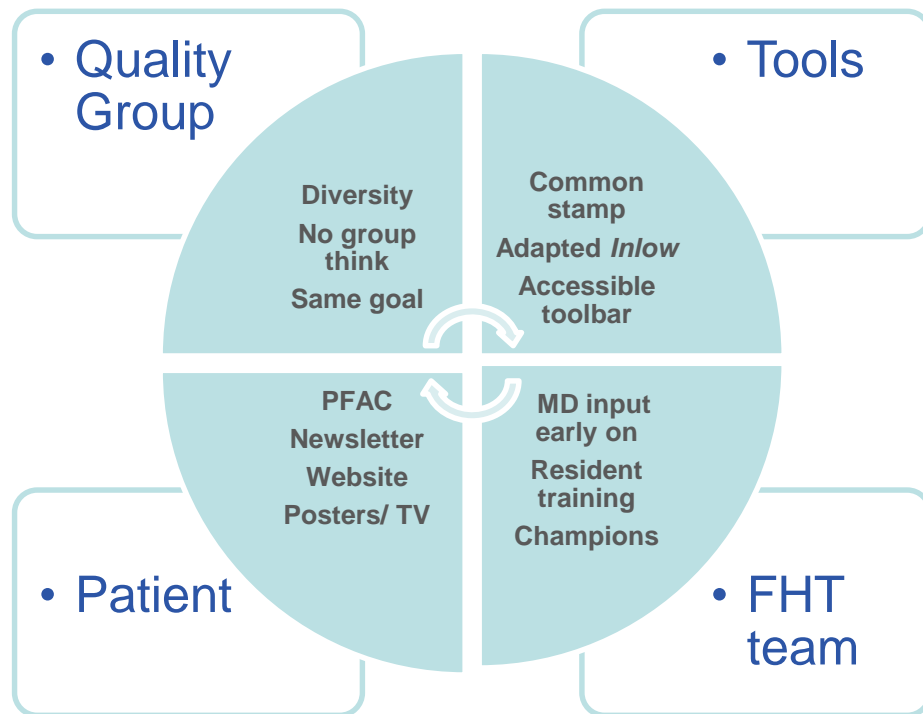
PHARMACOTHERAPY FOR TYPE 2 DIABETES

DM Visit Stamp Last Endo Consult:  DM Lab Req DM Resources/Rx DM CPG Site Bill K030  
Foot Exam Last Foot Exam: Jan 15, 2019 Graph HbA1C Last A1C: 0.075 ( Apr 1, 2019 )

Diabetes Resources	
<b>Referrals Rx</b>	<b>Handouts</b>
SB SUNDEC Referral Form	DM Diabetes Foot self-care
Exercise Prescription	DM Foot Care Clinics
	Diabetes Report Card
	Foods That Affect Blood Sugars (SUNDEC)
	Healthy Beverage (SUNDEC)
	Space on Your Plate (SUNDEC)



# Buy In





# Group Feedback



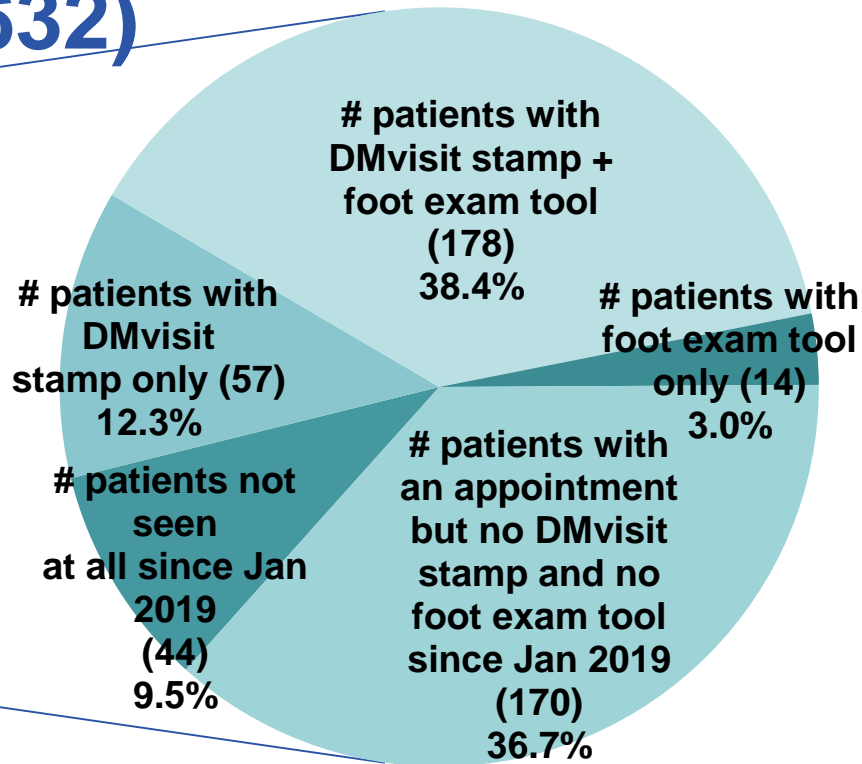
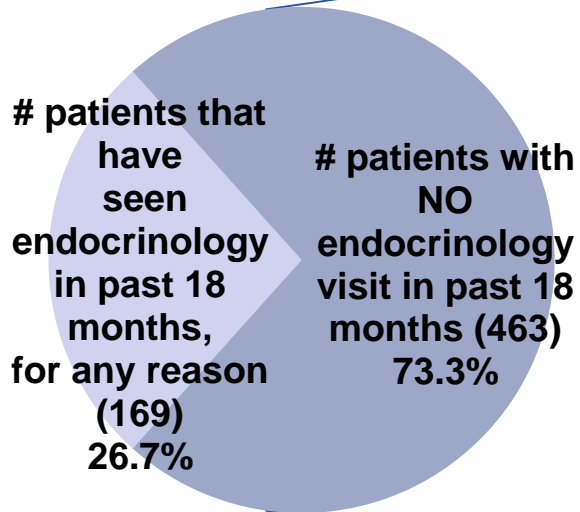


# So what's the deal with SAFHT's feet?

After 9 months:

- 42.4% of patients with T2DM who had a clinic appointment, and no endocrinology visit in the past 18 months, had a visit using the developed *DM visit stamp* AND a documented foot assessment with the developed tool
- 41.5% of patients with T2DM, and no endocrinology visit in the past 18 months, had a foot assessment done with the tool
- What about pre-diabetes patients?

# Total # patients with T2DM, FHO Enrolled (632)







# Points to hammer home

- Think about ...
  - 1) Practice efficiency
  - 2) Quality of care
- Find teammates with a vested interest
- Talk to your vendor about what tools are available for you
- **BUY-IN!**



# References

1. Embil, J. M., Albalawi, Z., Bowering, K., & Trepman, E. (2018). Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada: Foot care. *Canadian Journal of Diabetes*, 42(Suppl 1), S222-S227.
2. Botros M Kuhnke J Embil J et al Best practice recommendations for the prevention and management of diabetic foot ulcers In: Foundations of Best
3. Canadian Institute of Health Information. (2019). Analysis in Brief: Diabetes Care Gaps and disparities in Canada, 2009.  
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4. Wound Care Canada. (2018). Inlow's 60-second Diabetic Foot Screen.  
<https://www.woundscanada.ca/docman/public/wound-care-canada-magazine/2018-16-no1/1266-wcc-summer-2018-v16n1-final-p-26-29-inlow-tool/file>



# Contacts

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