Access to High Risk Foot Care:
Who is referring and who is not?

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Acknowledgements & Ethical approval

- This small quality audit did not require ethical approval based of Local Ethics Committee Policy
Background

- High Risk Foot Services are pivotal in the management of diabetes-related ulceration²
- Represent a key strategy for avoidance of unnecessary hospitalisation and amputation²
- Evidenced based guidelines support a co-ordinated multidisciplinary service³
- Specialised Multidisciplinary (MDT) High Risk Foot Services have been established in most major metropolitan hospitals¹
International, National and State Guidelines

Figure 1. International Working Group on the Diabetic Foot

Figure 2. NHMRC Guidelines

Figure 3. NSW State Guidelines
MDT Management & which patients are referred to a HRFS

MDT management is of necessity in circumstances where:

- Ulcers probe to tendon, joint or bone
- Ulcers which fail to reduce in size after four weeks
- Ischaemia
- Ascending cellulitis
- Limb or life threatening sepsis +/- critical limb ischaemia

NSW Government
Health
Sydney Local Health District
Diabetic Foot Ulcer Risk Factors

‘Treatment delay’ or ‘Wound duration’ have been identified as risk factors for:

- Failure of wound healing and amputation\(^6\)
- Associated with increased wound size\(^6\)
- Poorer outcomes\(^6\)

Wounds that present within an earlier time frame are “prognostically favourable”\(^7\)
‘Time to Presentation’ = ‘Ulcer Duration’

- ‘Time to Presentation’ i.e. ‘Ulcer Duration’ has been reinforced as a key performance indicator for HRFS\(^1\) and in grading systems.

- Local data has shown increased ulcer severity with delayed referral\(^1\)

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<tr>
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</thead>
<tbody>
<tr>
<td>Healing rate %</td>
<td>86 (1074/1249)</td>
<td>89 (607/682)</td>
<td>74 (64/87)</td>
</tr>
<tr>
<td>Time to healing (days)</td>
<td>51</td>
<td>49</td>
<td>77</td>
</tr>
<tr>
<td>Time to presentation (days)</td>
<td>12</td>
<td>Not reported</td>
<td>52</td>
</tr>
<tr>
<td>Re-ulceration rate (%)</td>
<td>66</td>
<td>Not reported</td>
<td>Not collected</td>
</tr>
<tr>
<td>Rate of amputation (%)</td>
<td>14 (175)</td>
<td>8.7 (59)</td>
<td>7 (6)</td>
</tr>
<tr>
<td>Level of amputation</td>
<td>N=37 DFU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor</td>
<td>33 (89%)</td>
<td></td>
<td>6 (100)</td>
</tr>
<tr>
<td>Major</td>
<td>4</td>
<td>0</td>
<td>0</td>
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Diabetes Centre Royal Prince Alfred Hospital 2012-2013
Treatment Delay implications

- Retrospective audit 75% of patients admitted to a major tertiary hospital with a diabetic foot infection had no contact with the MDT High Risk Foot Service⁹.

- Lower extremity amputation increased five-fold when severe infection and no contact with the MDT High Risk Foot Service occurred in combination⁹.
Case Study

Wound Duration – 3 months

Wound Duration – 4 months
Case Study

Wound Duration 12 months

8 weeks post treatment
Audit Question/Aims

- What is the time to presentation at the Concord Hospital High Risk Foot Service?
- Who is the source of formal referral to the Concord Hospital High Risk Foot Service?
- What is the percentage of general practitioner referral to the service?
Methodology

- A retrospective study design was employed at the Concord Hospital High Risk Foot Service

- The source, category and percentage of referrals to the Concord Hospital High Risk Foot Service was captured for 84 patients from February 2014 using medical records

- Percentage of referring GP’s was achieved by cross-referencing GP referrals with the number of GPs within the Foot service catchment areas

- Time to presentation was measured from the patients recollection of ulcer presentation to first foot service visit
## Results

<table>
<thead>
<tr>
<th>Source of referral</th>
<th>% (n)</th>
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<tbody>
<tr>
<td>General Practitioner</td>
<td>36% (30)</td>
</tr>
<tr>
<td>Vascular Consultant</td>
<td><strong>27% (23)</strong></td>
</tr>
<tr>
<td>Private Podiatrist</td>
<td>18% (15)</td>
</tr>
<tr>
<td>District Nursing</td>
<td>6% (5)</td>
</tr>
<tr>
<td>Other Specialists</td>
<td>13% (11)</td>
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<tr>
<td><strong>Total</strong></td>
<td>84</td>
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</table>

<table>
<thead>
<tr>
<th>Time to presentation</th>
<th>days</th>
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<tr>
<td>Mean</td>
<td>74</td>
</tr>
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</table>
Discussion

- Vascular Consultant referrals – high
- General practitioner referrals - low
Discussion and next steps

- Time to presentation is of concern

- High Risk Foot Service must promulgate existence to referrers and provide accessible referral pathways

- Strategies to overcome the issue must also focus on engaging with Primary Health Networks
Treatment Delay

- Reasons for treatment delay most frequently is attributed to patient behaviour\(^1\)
- Some delay may be explained to health professional behaviours\(^1\)
- Eurodiale Study 27% of patients with DFU had been treated for 3 months before referral to a specialised MDT foot service\(^8\)
- 50% had been treated by primary care physician\(^8\)


References


