

## O5

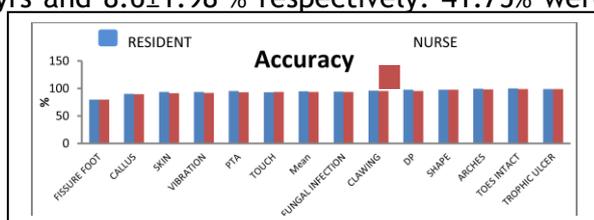
**Is delegation the key to walking forward? An analysis of the capabilities of residents and nurses in performing a comprehensive foot exam:** Bhavana Sosale, S R Aravind, Divyatha Arun, Suhas N, Soumya P C, Edward Jude, Diacon Hospital, Bangalore, India; Tameside Hospital, UK

**Background and aim:** Foot problems are the most important cause for morbidity in patients with diabetes. Periodic examination for the identification of high risk feet substantially reduces ulceration and amputations. Considerable time is spent by the consultant physician for the diagnosis of ‘at risk feet’. With 65 million patients with diabetes in India (2013) and numbers trending upward, lack of human resources and time, the existing consultant is overburdened. Neo support models with nurses and residents, which identify and refer patients with high risk feet to consultants, are essential. The aim of this study was to assess if residents and nurses have the skills to perform a foot exam and identify foot abnormalities competently. **Methods:** This was a cross sectional, observational study of 400 patients with type 2 diabetes attending the outpatient of a specialized diabetes hospital. All patients underwent a foot exam by a nurse, a resident and a consultant. All members of the team had certified training on assessment of the diabetic foot. Each was blinded to the findings of the other. Feet were examined for abnormalities of shape, clawing, amputations, skin changes/infection, fissures, calluses, fungal infections and ulcers. Sensations were tested using a 10 g monofilament and a 128 Hz tuning fork. Vascularity was examined by checking the pulsations of the dorsalis pedis(DP) and posterior tibial artery(PTA). The findings of the consultant were considered final. SPSS 18.0 statistical software was used to calculate accuracy and Kappa (K). **Results:** The mean age, duration of diabetes and Hba1c was  $56 \pm 11.95$  yrs,  $10.68 \pm 8.2$  yrs and  $8.6 \pm 1.98$  % respectively. 41.75% were female.

Table 1

|          |   | $\bar{x} \pm SD$ |
|----------|---|------------------|
| RESIDENT | A | 1.69±0.95        |
|          | B | 3.79±4.97        |
|          | C | 94.52±5.32       |
|          | K | 0.74±0.1         |
| NURSE    | A | 2.19±1.26        |
|          | B | 4.17±4.9         |
|          | C | 93.63±5.13       |
|          | K | 0.66±0.11        |

KEY TO TABLE 1  
 A – UNDERESTIMATION  
 B – OVERESTIMATION  
 C – ACCURACY  
 K – KAPPA



**Conclusion:** This study shows that delegation of the foot exam to identify high risk feet does not compromise standard of care. The resident and the nurse both proved to be proficient, achieving mean accuracy rates > 90%. The K values indicate moderately precise clinical findings and exclude findings arising by chance. Increase in targeted training can decrease the workload of the consultant. The ability to wisely and effectively delegate and reconstruct support systems is crucial to ensure that we all keep walking forward.