Audit on Accuracy of Otoscopic Diagnosis by Nurses in ENT SOPD Triage System

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Introduction
The Department of ENT, PYNEH has started its unique SOPD triage since 2004 with triage nurses performing otoscopic examination on patients presenting with ear complaints.

Objectives
To assess the accuracy of otoscopic diagnosis by triage nurses and its impact on the decision of priority booking.

Methodology
Patients with ear complaints were recruited from October 2015 to December 2015 in the Department of ENT, PYNEH. Their referral letters were screened and the otoscopic diagnosis made by the referring doctor (if any) were documented. Firstly a priority of booking was given by the triage nurse basing on the referral letter alone. The ear canals and ear drums of these patients were then examined by the triage nurses. Another booking priority was given to the patients depending on the otoscopic findings. The patients were then re-assessed by ENT Associate Consultants in the same setting with the otoscopic diagnosis and priority double-checked. The otoscopic diagnosis given by referring doctors in the referrals and by triage nurses were compared with that provided by ENT Associate Consultants whose decision was regarded as gold standard. The priority of booking given by triage nurses before and after otoscopy were also compared.

Result
Results: A total of 94 patients were recruited. The male to female ratio was 1.04:1. The age of patients ranged from 2 to 86 and the mean age was 54. The accuracy of otoscopic diagnosis made by the referring doctors was 75.0%. The accuracy of otoscopic diagnosis made by triage nurses was 94.7%. The accuracy of nurses was 19.7% higher than that of the referring doctors. For the priority of booking basing on referrals alone, 73 cases (77.7%) were given the correct staging, 12 cases (12.8%) were under staged and 9 cases (9.6%) were over staged. When otoscopic examination by triage nurses was included in the decision, 93 cases (98.9%) were
given the correct staging, only 1 case was over staged (1.1%) and no case was under staged. 12 cases (12.8%) had their priority of booking upgraded after otoscopic examination by nurses, 9 cases (9.6%) were downgraded and 73 cases (77.7%) remained the same priority. Conclusion: The accuracy of otoscopic diagnosis achieved by ENT triage nurses was significantly higher than that of the referring doctors. The results indicated that the otoscopic examination by ENT nurses provided a safer and more accurate triage than by screening referral letters alone.