# A NOVEL NEWBORN CLUBFOOT SCREENING CHECKLIST TO IMPROVE DISEASE DETECTION: A PILOT STUDY

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# **INTRODUCTION:**

Clubfoot also known as Congenital Talipes Equino Varus (CTEV) is a common foot deformity with the prevalence rate of 4.5 per 1000 live birth in Malaysia. Early initiation of treatment has shown to have favorable outcome. Screening for foot deformities including clubfoot is often done by non-orthopaedic trained personnel during routine neonatal checkup. Hence, early detection plays an important role in treatment and outcome of this disease. In this study, we examined the detection of clubfoot with and without an objective assessment screening tool. This study has the potential to raise awareness regarding clubfoot amongst health care personnel and provide a guide to diagnose clubfoot especially in primary health care centers.

This prospective study was conducted in Sarawak General Hospital, Kuching from November 2020 till June 2021.

### **REPORT:**

A total of 596 new-borns (n (number of foot) = 1192) were recruited in this study. 306 (n=612) were screened with Newborn Clubfoot Screening Checklist (NCSC) and 290 (n=580) were screened without checklist. 2 cases (n=2) of clubfoot were detected using the checklist and no case of inaccurate diagnosis in the checklist group. 14 cases (n=28) of inaccurate diagnosis in the group without checklist was identified with no cases of true positive clubfoot. Sensitivity of the NCSC was 100% (95% Confidence Interval (CI) 15.81% to 100%) and specificity was 97.7% (95% CI 96.69% to 98.47%).

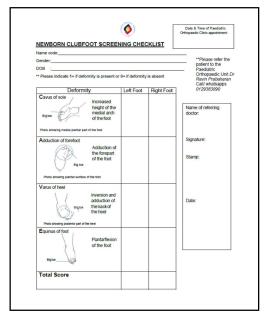


Figure 1: Newborn Clubfoot Screening Checklist

## **CONCLUSION:**

Newborn Clubfoot Screening Checklist aids in detecting CTEV and reduce inaccurate diagnosis.

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