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Better concordance for interphalangeal depth ratio than Schamroth's sign or hyponychial angle for diagnosis of digital clubbing

With reference to Chan's article¹ on digital clubbing, it needs to be highlighted that, although Myers et al² recommends assessment of profile angle and phalangeal depth ratio (PDR), a comparison of reliability of the two methods is lacking. Schamroth³ reported a clinical sign that incorporates two of the clinical features of clubbing (*Figure 1*).

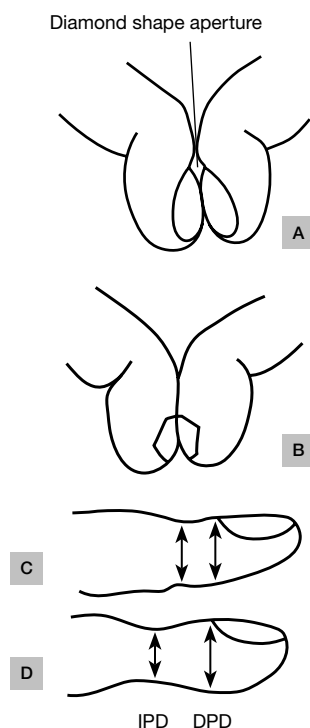


Figure 1. Clinical features of clubbing

A. Schamroth's sign present as diamond-shape aperture between opposing fingers is present

B. Negative Schamroth's sign

C. Clubbing absent as pharyngeal depth (ie interphalangeal depth [IPD]: distal phalangeal depth [DPD]) is <1)

D. Clubbing present as phalangeal depth ratio is >1

Normal fingers would create a diamond-shaped window when the dorsal surfaces of terminal phalanges of opposite fingers are opposed. The diamond is obliterated in clubbing because of loss of the profile angle and increase in soft tissue at the cuticle.

Schamroth's sign is now widely used by medical students and physicians alike as a screening test, to determine the presence of clubbing. The precision and accuracy was recently evaluated by Pallarés-Sanmartín et al,⁴ using two different observers. A total of 141 patients were included (95 men) with a mean age of 58.7 (SD = 18.5) years. The most common category of illness among these patients was infectious disease (n = 46, 33%), followed by pulmonary disease (n = 45, 32%). Prevalence of clubbing was 38% (53 patients).

Observer 1: Schamroth's sign had a sensitivity of 87% (95% confidence interval [CI] = 76–94%), specificity of 90% (95% CI = 82–94%), positive predictive value of 84% (95% CI = 72–91%), negative predictive value of 92% (95% CI = 84–96%), positive likelihood ratio of 8.40 (95% CI = 4.5–15.8), and negative likelihood ratio of 0.14 (95% CI = 0.07–0.29).

Observer 2: The results had a sensitivity of 77% (95% CI = 64–80%), specificity of 90% (95% CI = 82–94%), positive predictive value of 82% (95% CI = 69–90%), negative predictive value of 87% (95% CI = 78–92%), positive likelihood ratio of 7.60 (95% CI = 4.0–14.3), and negative likelihood ratio of 0.25 (95% CI = 0.15–0.42).

Concordance between the two observers for the presence of Schamroth's sign was $k = 0.64$ and for PDR measurements was $k = 0.98$.³

Although there is fair correlation in the sensitivity and specificity between the two observers for Schamroth's sign, there

was high inter-observer concordance for PDR and a modest concordance for Schamroth's sign. Assessment of hyponychial angle is subjective and difficult, and inter-observer concordance highly variable ($k = 0.39$ – 0.90).⁵

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Patients' perspectives on the delivery of hepatitis B management and care

Of the 218,000 Australians who currently have chronic hepatitis B (CHB), 100,000 remain undiagnosed¹ and only 13% are currently accessing clinical care.² This study explored patients' barriers to CHB management through self-administered questionnaires.^{3,4} Recruitment occurred through four liver clinics and one general practice in three Australian jurisdictions.

Ninety-three individuals with CHB responded. A liver specialist was the main carer for 72% (n = 67) of respondents, whereas general practitioners (GPs) were identified by 17% (n = 16) of respondents. Five respondents (5%) reported a traditional healer or no one as their main carer and another five respondents (5%) did not specify a main carer.

Of the respondents who accessed a specialist, 75% (n = 50) believed the specialist was more knowledgeable about CHB than GPs, whereas 21% (n = 14) were unaware GPs could manage CHB (*Table 1*). All respondents cared for by their GP (n = 16) understood the information provided, compared with 79% (n = 53) who were cared for by a specialist (Fischer's exact test [two-sided]: $P = 0.061$). Seventy respondents (75%) had attended a specialist clinic and reported difficulties such as long waiting periods (47%, n = 33), difficulties with parking (43%, n = 30) and fear of receiving bad news (41%, n = 29; *Table 1*).

Limitations to the study included a low response rate (24%), which restricts the generalisability of the findings, as well as limited recruitment sites.

In conclusion, barriers to receiving CHB care in specialist clinics exist. The role of GPs in managing CHB needs to be promoted as a viable option. Developing shared care models between specialists and GPs could increase access to CHB management services.^{5,6}

Table 1. Most common reasons for choice of clinical care for CHB management and difficulties experienced by respondents who attend a liver clinic

A. Respondents' reasons for receiving clinical care from a liver specialist rather than a GP (N = 67)	n (%)
The liver specialist has a better understanding of hepatitis B	50 (75)
My GP has told me to see the liver specialist	27 (40)
The liver specialist treats me well	26 (39)
It is more convenient for me to see the liver specialist	21 (31)
I did not know that my GP can manage hepatitis B	14 (21)
B. Respondents' difficulties with the liver clinic (N = 70)	
Waiting too long at the clinic	33 (47)
Difficulties with car parking	30 (43)
Being afraid of getting bad news	29 (41)
Being concerned about client privacy	16 (23)
Needing someone to go with to the clinic	13 (19)

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Letters to the Editor

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