

Diagnosis of fever by palpation

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Sir,

Whilst on placement in 1999 at St John's Hospital in Northern Malawi I observed to my surprise that patients were diagnosed with "fever" purely on the basis of palpation and general observation. Thermometers were available but not used. Nwanyanwu et al (1997) also observed that palpation rather than thermometry was used to determine the presence of fever in several parts of Malawi. This practice may be widespread in the region. Is this method of assessing the febrile state safe region where falciparum malaria and other deadly infectious diseases dominate case-load?

A study performed by the author at St John's Hospital in 1999 utilised 220 subjects and demonstrated a sensitivity of 57% and

a specificity of 73% for diagnosing fever by palpation. A mercury thermometer was used as the standard. Clinicians were also asked how sure they were about their decisions using a numerical scale. Results showed that about 95% of decisions made were on the level of "very sure" or "completely sure" that the diagnosis was correct. If this data is valid then clinicians at St John's may misdiagnose as many as 43% of patients with true fever as afebrile if they continue to use only palpation rather than thermometers to diagnose fever.

Results from some other papers surveying the accuracy of palpation for fever are listed. No study demonstrated both high sensitivity and specificity for palpation as a method for diagnosing fever.

Study	Year	Nos.	Sensitivity	Specificity	Subject/Assessors	Demographic
Bergeson & Steinfield (2)	1974	1149	58%	98%	Children/Nurses	Western
Banco & Veltri (3)	1984	303	78%	86%	Children/Mothers	Western
Jones et al (4)	1993	573	89%	59%	Children/Mothers	African
Hooker et al (5)	1996	180	82%	77%	Children/Mothers	Western
Nwanyanwu et al	1997	1120	82%	68%	Children <5 years/Clinicians	African
			97%	19%	Children <5 years/Mothers	

Currently available research suggests that clinicians are at risk of mis-diagnosing patients if thermometers are not routinely used. Thus some patients, with malaria for instance, may miss out on potentially life-saving treatment where fever is missed. Further investigation is warranted. In particular it would be useful to know exactly how widespread this practice of palpation for fever is in Southern Africa and whether there is indeed any negative impact on the population health at medical centres where thermometers are not used.

References

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