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Use of Thermospot by Slum Dwelling Mothers

Thermospot is a cheap liquid crystal thermometer. We assessed its impact on neonatal care when used by mothers in an inner-city slum (Sunder Nagri, Delhi) in winter (January and February 2005).

All home deliveries under the care of the Community Health Department, St Stephen's Hospital were included. Exclusion criteria were hospitalisation and parental refusal. The Hospital Ethics Committee approved the study.

Thermospot was stuck to the infant's abdomen over the liver and the mother taught how to interpret it. Mothers were counseled on the importance of keeping the baby warm and told how to do so. If the device came unstuck it was reapplied with transparent tape. The site was inspected for skin damage or irritation. The thermospot was removed on day 7. Information from mothers on acceptability, the number of episodes noticed and subsequent actions taken was obtained using a questionnaire in Hindi.

Thirty-two infants were recruited. Five were lost to contact (moved to village). None of the mothers found the device unacceptable or removed it. There were no cases of skin damage or irritation. It came unstuck and had to be re-applied in 4 cases. In each case only

one re-application was necessary.

Thirteen out of the 27 mothers noticed a colour change. Of these mothers, the average number of episodes of colour change was 4.4.

Eight of the thirteen mothers who noticed a colour change reacted. In all cases the action taken was correct (*e.g.*, covered the child, clothed the child, closed doors and windows, warmed the room, put the child in mother's lap, lit fire in the room, put curtain on door to stop draught).

When asked to judge thermospot as "good", "okay" or "useless", all mothers judged it to be either "good" or "OK". The percentage that thought it was "good" was 70%, 60% and 25% respectively of those who saw a colour change and reacted to it, those who saw a color change but did not react and those who did not see a color change.

Thermospot performance when used by non-medically-trained local volunteers in this same group of infants had been assessed in a parallel study(1) and its negative and positive predictive values had been 99% (making false reassurance unlikely) and 58% respectively. We can therefore calculate that during the first week of life thermospot use by mothers led to $0.76 (13/27 \times 4.4 \times 0.58 \times 8/13)$ helpful interventions per infant.

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LETTERS TO THE EDITOR

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**David A. Green,
Rajesh Khanna,***

*From the Departments of Pediatrics and
Community Health, St Stephen's Hospital,

*Tis Hazari, Delhi 110 054, India.
E-mail davidhafiz@doctors.org.uk*

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