Key messages

- Past neglect of unconvicted mentally ill prisoners has led to further violent offending after release
- We conducted a survey of the point prevalence of psychiatric disorder in men remanded in custody in England and Wales and assessed their treatment needs
- A diagnosis of psychiatric disorder was made in 63% of those surveyed, including 5% with psychosis
- Over half of these prisoners were judged to have an immediate treatment need—most could be treated inside prison, but 9% needed transfer to a psychiatric bed outside prison
- By extrapolation, the remand population probably contains about 680 men who need transfer to hospital for psychiatric treatment, including about 380 with serious mental illness
- Prison treatment facilities for unconvicted prisoners need substantial expansion

emphasised that the figure of 526 is a minimum. Our assessments were brief, and more detailed examination would probably reveal higher levels of morbidity.

In its strategy for health the government has identified mental illness as a priority,²⁰ and there is particular concern about mentally disordered offenders. Remand prisons contain an important pool of unmet need. On the grounds of humanity and public safety, it is unacceptable that mental disorder in this readily accessible group of offenders should go undetected or untreated.

We thank the prison staff, who made it possible to carry out the survey, and the prisoners themselves, who agreed to be interviewed at a time when their lives were in turmoil.

Funding: This work was commissioned by the Research and Planning Unit on behalf of the Directorate of Prison Health Care at the Home Office.

Conflict of interest: None.

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(Accepted 15 November 1996)

Video assessment of simple respiratory signs

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Case management algorithms based on simple symptom histories and physical signs are seen as one means of reducing childhood mortality in developing countries. Simple respiratory signs, often accompanied by metabolic acidosis, are important indicators of potentially life threatening malaria.¹ Some are also characteristic of severe, acute respiratory infection.² It is usually assumed that clinicians share a common understanding of these simple signs. Differences in interpretation might, however, both contribute to the overlap apparent in published descriptions of these illnesses and in practice reduce the effectiveness of algorithms.

Methods and results

Twenty five video recordings of children (aged 3-50 months) admitted with acute respiratory infection or malaria to a hospital on the Kenyan coast were made with consent, compiled, and distributed to 30 clinicians for review. They included representatives from six different research units (see acknowledgements) and six government of Kenya clinical officers. A standard questionnaire giving details of the patients' ages and respiratory rates and asking for a "yes" or "no" response to the presence of the signs nasal flaring, indrawing, and deep

(Kussmaul's) breathing was completed, independently, by each clinician. An answer of "don't know" could not be given but a record could be rejected on the basis of poor quality. No structured definition of the clinical signs was provided. No discussion of the records was allowed during viewing or between observers viewing at different sittings. All data were double entered and verified by using dBASE IV and analysed with SPSS.

Interobserver agreement was assessed with the κ statistic, a measure of how much better agreement is than expected if observers simply answer "yes" or "no" at random. Values for κ may vary from -1 to +1, with -1 indicating perfect disagreement, 0 the level of agreement expected by chance, and +1 perfect agreement; a κ value >0.6 suggests substantial agreement.³ A κ value cannot be calculated if the number of "yes" or "no" responses given is 0. The consensus opinion of the reference centre was defined as agreement by at least 5 of the 6 observers for the presence or absence of a sign. The responses of individual clinicians not from the reference centre were compared with this consensus response and the proportion with a κ score ≥ 0.6 compared by the χ^2 test.

Of the 2250 individual assessments of simple clinical signs, in only seven (<0.5%) was video information judged inadequate. Although borderline records for which consensus was not achieved by the reference group were excluded from analysis (probably artificially raising absolute κ values), comparison of an individual's responses with the reference group's consensus response showed clear interobserver variability even for these "clearcut" records (fig 1). This was most noticeable for the sign deep breathing, when only 5/23

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BMJ 1996;313:1527-8

Fig 1—Agreement between individual observers and the consensus response from the reference centre (some κ values are missing because they could not be calculated when the number of "yes" or "no" responses = 0)

observers achieved a $\kappa \geq 0.6$ compared with 19/23 for indrawing ($P < 0.001$) and 20/24 for nasal flaring ($P < 0.001$). The differences remained significant ($P < 0.005$) when only data from the 18 research clinicians were compared with the reference centre.

Comment

The video recordings allowed us to assess interobserver variability among 30 clinicians from at least five countries exposed to exactly the same clinical information. Good general agreement between

observers and a derived consensus response was found for nasal flaring and indrawing, although, as reported previously,⁴ this masks sometimes major differences between individuals. Given their use as indicators of disease severity,^{1,2} this is reassuring. However, the poorer agreement for deep breathing is of concern. Differences in interpretation of this sign—which should identify children with metabolic acidosis, a life threatening complication of severe malaria^{1,5} could reduce the effectiveness of a management algorithm for this disease.

Improving interobserver agreement may improve the power of clinical studies, make studies more comparable, and make their results more generalisable. Video recordings may be useful in standardising definitions of simple respiratory signs and could be used to train health workers using algorithms, increasing their effectiveness.

This study is published with the permission of the director of the Kenya Medical Research Institute (KEMRI). We thank the nurses and staff of Kilifi District Hospital and the KEMRI research ward and Margaret Marr for help in making the video recordings and all the observers from the following units: KEMRI, CRC Kilifi, Kenya; KEMRI, CRC Kisumu, Kenya; University Department of Paediatrics/National ARI Programme, Nairobi, Kenya; MRC(UK), Fajara, The Gambia; Muhimbili Medical Centre, Dar es Salaam, Tanzania; CDC, Atlanta, USA. Particular thanks are owed to the following: Professor F E Onyango, Dr N Anstee, Mr E Shungu, Mrs K Amuma, Dr K Mulholland, Dr B Nahlen, Dr J Zucker, Dr S Redd, and Professor M Molyneux.

Funding: KEMRI and the Wellcome Trust (040313). KM is a Wellcome Trust senior research fellow in clinical science (031342).

Conflict of interest: None.

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(Accepted 6 September 1996)

An endoluminal brush to detect the infected central venous catheter in situ: a pilot study

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BMJ 1996;313:1528-9

Catheter related sepsis is a potentially life threatening infection caused by an indwelling intravenous catheter, with the same organism cultured from peripheral blood and from the removed catheter. If such sepsis is suspected the catheter is usually removed, although subsequent bacterial culture shows most catheters to be sterile.^{1,2} We evaluated a new brush (Endoluminal, FAS Medical, London) for detecting infection in the lumen of a central venous catheter. The brush has nylon bristles wound tightly around the distal end of a stainless steel wire and slides along the lumen of the catheter to its distal (inner) end. It is then removed for culture. The

technique is based on the principle that bacteria collect on the fibrin sleeve on the catheter's inner surface; fibrin thus becomes enmeshed in the brush's bristles.

Methods and results

We studied 115 catheters from 112 ward based surgical patients (16-91 (median 65) years) receiving intravenous nutrition whose central venous catheters (diameter 14-18 mm) were going to be removed either on termination of treatment ($n=44$) or if the catheter was thought to be the source of infection, causing either sepsis or unexplained fever ($n=71$). We obtained informed consent from each patient, and the study was approved by our local ethics committee.

The brush was passed along then withdrawn from the catheter with the catheter in situ. The catheter was then removed and the tip sent for culture. Blood was aspirated from a peripheral vein (a) before brushing to determine if catheter related sepsis was present and (b) one minute after brushing to determine if a bacteraemia had been induced by brushing a colonised catheter (growth of ≥ 100 colony-forming units externally³ or