received for only 31% of children living in rural areas, 25% of children with no intellectual disability, 23% of children not Australian-born, and 16% of children from families whose primary language is not English.

Without consent for every case, the register cannot accurately reflect the age or geographic distribution of children with autism. If the register only collected information on consenting cases, there would be severe under-ascertainment and the output would be notably biased. Perhaps more importantly, unidentifiable records cannot be linked to other datasets. Other WA population databases include information on hospitalisations, genetic testing, genealogical links, midwife notifications, birth defects, pharmaceutical history, and people with cerebral palsy. Linkage to these datasets would enormously facilitate population-based autism research to investigate the aetiology, associations and natural progression of autism disorders. The WA autism register is an internationally unique population-based resource, but its application is limited without the inclusion of identifying information. This remains the reality at a time when the research community and affected families desperately seek information about the condition and solutions for their children.

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Are the Australian guidelines asking too much of the Pneumonia Severity Index (PSI)?

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To the Editor: We agree with Buising and colleagues[1] that, in terms of predicting clinical outcomes, the Pneumonia Severity Index (PSI) developed by Fine and colleagues[2] is heavily weighted towards age and pre-existing comorbidities. However, we disagree with both their proposed "solution" and the concept on which it appears to be based.

Although the current Australian antibiotic guidelines suggest that admission to the intensive care unit should be considered mainly for patients with class V community-acquired pneumonia (CAP),[3] a review of the data of Fine and colleagues suggests that patients in both class IV and class V are most likely to need this type of care. In the PSI's validation cohort of 38 039 patients, 73% of those requiring intensive care fitted these classes.[2] Thus, by simply modifying the current antibiotic guidelines to include patients with CAP in either class IV or V as being at greatest risk of needing intensive-care admission, the recommendations would be accurate.

By comparison, Buising and colleagues advocate using the modified British Thoracic Society (BTS) rule, which was validated in only 244 patients.[4] While this approach may have some future merit, we believe there are insufficient data to advocate its use at present. A comparison of the PSI and original BTS criteria found that PSI classes IV and V were more sensitive at predicting need for intensive-care admission.[5]

Secondly, we are concerned about the suggestion by Buising and colleagues that young patients with severe CAP who are not in PSI class V could have worse outcomes if they do not receive broad-spectrum antibiotics.[1] This implies that severe CAP is more likely to be due to unusual or resistant pathogens. This is not supported by available evidence. Instead, early clinical consideration of the likely pathogens and the potential use of new diagnostic "point of care" tests (eg, pneumococcal and *Legionella* urinary antigen assays and analysis of throat swabs by polymerase chain reaction for respiratory viruses and "atypical" pathogens) are likely to be of greatest benefit in empirical antibiotic prescribing.

Although CAP is a common admission diagnosis, there are very few published Australian studies defining its aetiology, optimal treatment and clinical outcomes. We are currently undertaking a large prospective study (the Australian Community-Acquired Pneumonia Study) at six major hospitals in three states to address these issues. Results should be available in late 2005.

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2 Fine MJ, Auble TE, Yealy DM, et al. A prediction rule to identify low-risk patients with community-acquired pneumonia. *N Engl J Med* 1997; 336: 243-250.
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5 Angus DC, Marrie TJ, Obrosky DS, et al. Severe community-acquired pneumonia: use of intensive care services and evaluation of American and British Thoracic Society Diagnostic criteria. *Am J Respir Crit Care Med* 2002; 166: 717-723. ❑

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In reply: We thank Charles and colleagues for their comments. The modified British Thoracic Society (mBTS) severity score for patients with community-acquired pneumonia (CAP) has been validated in more than one study (the largest involving 1068 patients from three countries[1]) and is recommended by the British and American thoracic societies. It predicts requirement for intensive care with comparable sensitivity to the Pneumonia Severity Index (PSI) score (using classes IV and V)[2] (unpublished data), and is easy to use, requiring four variables rather than 21. The study cited by Charles and colleagues showing that the BTS severity score was less sensitive used an older version of the tool. We believe the mBTS score represents a reasonable, simple alternative tool to identify severe pneumonia, although neither score should replace clinical judgement.

Caution is needed when relying on a scoring system that may give false reassurance about patients not recognised to be at risk. Early recognition of severe illness enables early intensive-care intervention, which is associated with better outcome.[3] The major guidelines for management of CAP recognise the entity of severe pneumonia and recommend broader-spectrum antibiotic therapy.[4-6] Whether the spectrum of pathogens in severe pneumonia differs from that in mild pneumonia is not yet clear, as data are conflicting.[7,8] However, a percentage of patients with severe pneumonia will have more resistant or unusual pathogens. Inadequate antibiotic therapy for patients with severe pneumonia is associated with higher mortality. For intensive-care patients, where there is less perceived "room for error", a strategy of broad empirical antibiotic therapy and early narrowing to directed therapy is usually promoted.

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2 Neill AM, Martin IR, Weir R, et al. Community acquired pneumonia: aetiology and usefulness of severity criteria on admission. *Thorax* 1996; 51: 1010-1016.

3 Rivers E, Nguyen B, Havstad S, et al. Early goal directed therapy in the treatment of severe sepsis and septic shock. *N Engl J Med* 2001; 345: 1368-1377.

4 British Thoracic Society. Guidelines for the management of community acquired pneumonia in adults. *Thorax* 2001; 56 Suppl 4; 1-64.

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The Australian Government's Review of Positron Emission Tomography: evidence-based policy decision-making in action

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TO THE EDITOR: I read with interest the article by Ware et al[1] and the response from Davies.[2] Let me first commend Ware and his colleagues on an excellent piece of investigative journalism.

For the readers' information, there are about 200 operational positron emission tomography (PET) scanners in the United States, and the United Kingdom has recently committed to 50–60 PET scanners within the next 5–10 years.[3] This is based on the vast amount of published evidence with respect to the benefit of PET for the diagnosis, staging and monitoring of a range of malignancies and other disorders.

Despite more than 15 000 publications[3] and the fact that some countries reimburse for many indications not covered in Australia (eg, breast cancer restaging, dementia assessment), our authorities request "Australian data" before allowing expansion of the Medicare benefit for PET in Australia. The issuing of only eight Medicare licences (ie, about 1 per 2.5 million population) also impedes access to what may be the most important imaging development of the past 20 years.

What was not mentioned by Ware et al is the grossly inadequate amount paid for PET services under the Medicare Benefits Scheme in Australia. Currently, the reimbursement for a fluorodeoxyglucose PET scan in the US is about US$2000/scan. In Australia, the Medicare Benefits Scheme pays about $900. This makes our reimbursement one of the cheapest in the world. So cheap that it makes no economic sense for private entities to provide PET services in this country (note: isotope cost, about $350/patient; cost of PET set-up, $2.5–5 million). So the Common-