

disorder depends very much on experience and effort. This might explain the low rate of unclassifiable subjects. In addition, it is a general impression of local epileptologists that specific epilepsy syndromes, like juvenile myoclonic epilepsy or childhood absence epilepsy, are less commonly seen in the adult population in this locality compared to western population.⁵⁻⁷ Difference in remission rate of respective epilepsy syndromes of western and Chinese population may be another explanation. Nevertheless, we believe our data are a true reflection in this aspect. It is likely due to the difference in genetic constituent and yet to be proven. Longitudinal follow-up and further meticulous electro-clinico-anatomical validation of each single patient by epileptologist in both paediatric and adult epilepsy/neurological centres is indicated.

We appreciate Hui and Kwan's effort of emphasising our concerns and their listing of our concern of immense need of a local population-based epidemiological study.¹ Nevertheless, we also appreciate Hauser's comment, "No single method will identify all case of epilepsy in any population."²

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Severe acute respiratory syndrome and respiratory protection

To the Editor—Severe acute respiratory syndrome (SARS) emerged last year as a new infectious disease,¹ as well as an occupational hazard² for health care workers treating infected patients. The Centers for Disease Control and Prevention (CDC) recently drafted guidelines¹ suggesting that routes of transmission of the SARS-associated coronavirus (CoV) involve the mucous membranes, such as the respiratory system and conjunctivae of the eyes (ocular and fomite viral). Correspondence by Wong³ in the *Journal* suggests that the N-95 mask (respirator) is "appropriate" in the protection against the SARS CoV. This notion is supported by the CDC's recommendation that N-95 respirators be worn to protect health care workers against inhalation hazards from SARS.¹ I have recently suggested that a higher level of protection (ie a full-face air-purifying respirator; FFR) is warranted,⁴ because droplets under appropriate conditions may dry out and result in small airborne particles.⁵ Occurrence of these particles seems to be most relevant to the spread of SARS when health care workers perform aerosol-generating procedures,^{6,7} especially because the SARS CoV may survive outside the body for longer than 48 hours.⁷

Studies of the protection provided by barriers and respirators have found that paper⁸ and surgical masks^{9,10} are inadequate, but that N-95 respirators are both adequately protective⁸ and inadequately protective.^{6,9} The researchers note, however, that N-95 masks were not fit-tested in every case. Overall, these studies suggest that N-95 respirators do not have optimal efficiency. It should be noted that fit-

testing alone is unlikely to remedy the problems associated with N-95 respirators, especially because cases of SARS have been reported among people who had used fitted N-95 respirators along with other protective equipment, including eye and face shields.¹⁰ To provide the best protection against airborne and droplet transmission, the use of an elastomeric FFR with an ultralow penetrating air (ULPA) filter has been suggested.⁴ This type of respirator will provide protection for the conjunctivae of the eyes and reduce leakage at the face seal.⁴ Eye protection is important because health care workers using fitted N-95 respirators, other protective equipment, and eye and face shields have contracted SARS.^{6,10,11} Because ULPA filters can filter out mono-dispersed particles of 120 µm or larger¹² and because the SARS CoV is about 60 to 80 µm,¹² ULPA filters might be more efficient than high-efficiency particulate air (HEPA) filters,⁴ especially when aerosol-generating procedures are performed. However, when aerosol-generating procedures are not being performed,² the existence of electrostatic charges⁵ on the SARS CoV and the low likelihood of droplet formation may allow HEPA filters to be used.

One recent report has suggested that powered air-purifying respirators be used to protect against SARS.¹⁴ These respirators work under positive-pressure, whereas FFRs work under negative-pressure. The limitations of powered air-purifying respirators include their bulkiness, the need for a battery (which limits its duration of use), and increased weight. The biggest advantage of powered

air-purifying respirators is that they do not provide a strain on an individual's respiratory system.

It should be noted that a study has reported a significant reduction in the number of infected health care workers in intensive care wards when ventilation rates were increased, even when these workers did not use "adequate" respiratory protection.¹⁵ These results suggest that amount of ventilation in a setting is also important in the occupational transmission of SARS CoV.¹⁵ This finding suggests not only that multiple factors are involved in the prevention of infectious disease among health care professionals, but also that the SARS CoV can be transmitted by an aerosol route in an occupational setting.

Regardless of the type of respirator employed, it is necessary that appropriate fit-testing be conducted and that respirator use be at a 100% level when managing potential cases of SARS.^{4,12} In general, commercially available non-elastomeric respirators cannot be efficiently fit-tested, because they do not provide the face seal that is required to protect against such a highly infective virus.

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Wrong emphasis in case report on cholestatic jaundice

To the Editor—I am concerned by the emphasis placed in the case report titled "Cholestatic jaundice caused by sequential carbimazole and propylthiouracil treatment for thyrotoxicosis" that was published recently by Chan et al in the *Journal*.¹ According to the report, "extreme caution should be taken when a patient develops hepatotoxicity in response to one type of antithyroidal agent, because cross-reactivity may develop in response to a second type of antithyroid drug". From the description of the case, the patient was treated for only 2 weeks when he developed pruritus to carbimazole. Treatment was changed to propylthiouracil and jaundice developed again, only 2 weeks after starting treatment. These intervals were very short and therefore unlikely to be avoided by any changes in the frequency or monitoring currently practised. It is usual practice that all new patients are treated and followed up at 2- to 4-weekly intervals. A single case report as such is unlikely to change our prescribing habits of starting carbimazole therapy and changing to propylthiouracil if any side-effects occur with the former drug.

In my view, the real emphasis of the case should be in the caution that we must exert in the use of steroid treatment for conditions of which the pathogenesis is uncertain. In this case, steroids were used as a sort of last-stage attempt. Indeed, the patient's subsequent course of fulminant pneumonitis can be attributed to steroid use, and it is fair to say the patient died of complications of steroid treatment. The patient did not die because of antithyroid treatment.

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