Physicians' perception of pandemic influenza

The possibility of a human influenza pandemic, arising from either mutation of an avian influenza virus or reassortment with a human strain, has received much attention and media exposure. Although there are some dissenters,¹ the expert consensus remains that a pandemic is almost inevitable.²⁻⁷ The need for a greater appreciation of the risks and challenges posed by avian influenza, and the need for doctors to draw attention to this "predicament of extraordinary proportions" has recently been highlighted.⁸

We exploited the opportunity afforded by an electronic voting system at a recent course at Oxford University, "Infection & Immunity in Children", to investigate the perception of physicians on a number of aspects of avian influenza. The attendees comprised 161 physicians, predominantly from Europe (50% from the UK), with an interest in paediatric infectious diseases. Voting was anonymous and included a question about seniority to enable subsequent responses to be categorised. Results were revealed only after all questions had been answered.

Of the 161 attendees, only 72 (44.7%) believed that an influenza pandemic in the next few years was "almost inevitable" or "very likely" (table 1).

The majority thought a pandemic was only "possible" and 16 (9.9%) thought it was "unlikely" or very "unlikely". Asked whether they had a supply of oseltamivir for personal or family use, 11 (7.9%) of 139 respondents answered affirmatively. Interestingly, only one (3.7%) of 27 consultants in infectious diseases had a personal supply, in contrast to five (17.2%) of 29 trainees in infectious disease (senior registrars or fellows), perhaps reflecting a perceived higher risk of exposure.

This small survey provides an interesting insight into physicians' attitudes to the threat of pandemic influenza. Despite evidence to the contrary that has received widespread exposure in both the medical and lay press, over half of these physicians (who are likely to have a more than average interest in and knowledge about avian influenza) did not believe the risk of an imminent influenza pandemic was more than a possibility. Even so, a significant minority had sufficient concern to have a personal stockpile of neuraminidase inhibitors, despite strong recommendations against this.⁹ If the perceived risk of an influenza pandemic

observed in our survey is reflected in the wider medical community then it is perhaps not surprising that doctors "are largely silent" about this issue.⁸ The reasoning underlying physicians' attitudes to pandemic influenza needs further investigation if doctors are to play a role in alerting the world to this "predicament of extraordinary proportions".⁸

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Estimating children's weights: a developing country perspective

We read with interest the study by Luscombe and Owens¹ in which a new age-based formula is proposed for estimating weight in paediatric resuscitation. However, as the authors admit, the study findings are limited to a specific UK population and may not apply elsewhere.

In contrast to the UK, where children's weights are increasing, in Malawi undernutrition is a significant problem with 48% of children under 5 years of age stunted, 22% underweight for age and 5% wasted (below -2 SD weight for height/length).² Here and in other developing countries, it seems likely that an age-based formula developed in a well nourished population will overestimate the weight of many children. As 95% of Malawian children are an appropriate length for their weight, measuring length may offer a better guide to estimating weight.

To test this assumption we retrospectively reviewed data on children aged 1-10 years admitted to the resuscitation area of the Queen Elizabeth Central Hospital accident and emergency department, Malawi over 1 month. We chose these children as they represent those most likely to receive treatment based on an estimated weight. We identified 148 children, of whom 100 had both age (in months) and weight recorded (measured during admission and recorded to the nearest 100 g). Mean age was 30.3 months (range 1-7 years) and mean weight was 11.1 kg (range 6-26 kg).

We then used the current formula (2×(age+4)) and the new formula proposed by Luscombe and Owens (3×age+7) to assess their accuracy against actual weight. The current formula overestimated weight by a mean of 10.6% (range +28.5 to -39%, where a negative value reflects an overestimate). The proposed formula overestimated weight by a mean of 17% (range +21 to -44%).

Most children requiring resuscitation were under 2 years of age. In older children (>5 years of age, n=9), weight was overestimated to a greater extent using the proposed formula, by a mean of 30.9%, compared to an overestimate of 14% using the current formula. This may reflect the cumulative effect of age on stunting.

Table 1 Results of electronic voting categorised by seniority of physician							
	What is the probability of an influenza pandemic in the next few years?					Do you have a personal supply of oseltamivir?	
	Almost inevitable	Very likely	Possible	Unlikely	Very unlikely	Yes	No
Consultant in infectious diseases	3	9	15	3	0	1	26
Consultant in other specialty	2	15	13	2	2	2	25
Trainee (senior registrar/fellow) in infectious diseases	3	10	13	4	0	5	24
Trainee (senior registrar/fellow) in other specialty	2	0	5	1	1	0	9
Registrar/resident	5	22	20	1	1	3	37
Other	0	1	7	1	0	0	7
Total	15	57	73	12	4	11	128