reported among children treated with double dose co-trimoxazole for non-severe pneumonia,¹² indicating that the problem already exists. Recent data on the failure of standard antimicrobial treatment with parenteral penicillin or amoxicillin for severe pneumonia among HIV infected children in Africa are even more alarming, with failure rates of 24% by day 14.¹³

What then is the way forward? Clearly further refinement of clinical algorithms for easy diagnosis of childhood pneumonia by community health workers is necessary. This work is hampered by the lack of a gold standard for the diagnosis of pneumonia in population settings. Transthoracic lung aspiration and microbiology have been recommended for research work,¹⁴ but there is an urgent need to develop robust molecular methods for diagnosing pneumonia in the field. Given the planned large scale demonstration projects of Hib and pneumococcal conjugate vaccine in various parts of the world, development and validation of such diagnostic methods and clinical algorithms must become a priority. The large scale introduction of management strategies for pneumonia by community health workers must also be accompanied by robust monitoring and evaluation of the validity and impact of such strategies.

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Caesarean delivery in the second stage of labour

Better training in instrumental delivery may reduce rates

Despite much discussion of the increase in elective caesarean rates over the past 20 years,¹ little attention has been paid to the rise in second stage caesarean section rates. The maternal risks of second stage caesareans include major haemorrhage, longer hospital stay, greater risk of bladder trauma, and extension tears of the uterine angle leading to broad ligament haematoma.² Although second stage caesarean section is sometimes appropriate, many could be prevented by the attendance of a more skilled obstetrician.

Currently, obstetric trainees perform most of the second stage trials of instrumental delivery. A recent UK study found that decisions made by consultant obstetric staff are important in determining whether a second stage caesarean section is the optimum method of delivery for women with delay in advanced labour.³ The investigators found substantial differences between consultants' and specialist registrars' opinions on factors affecting safe vaginal delivery—such as position of the fetal head in the maternal pelvis and its proximity to the pelvic outlet. Consequently, a consultant obstetrician who performed a vaginal assessment was more likely to reverse a decision made by an obstetric trainee for a caesarean and proceed to a safely conducted instrumental delivery.

From the women's perspective, receiving a senior opinion might make their labour worth while, in that they have a successful vaginal birth, and their delivery and reproductive future safer. Without increases in junior doctors' experience and recruitment into the specialty, the problems with second stage caesareans will rise. Furthermore, women who have undergone a caesarean section are less likely to have a vaginal birth in subsequent pregnancies because they tend to request repeat elective caesarean delivery.⁴ Repeat and recurrent caesareans are associated with higher rates of placenta praevia and accreta.^{5 w2 w3}

According to the Royal College of Obstetricians and Gynaecologists audit figures, about 35% of caesareans for singleton pregnancies are performed because of failure to progress in labour, of which a quarter occur at full cervical dilatation.⁶ In 55% of these cases no attempt was made to achieve a vaginal birth with either forceps or ventouse. In those births where instrumental delivery was attempted, the audit noted a "failed" rate of 35% for ventouse and 2% for forceps.⁶ These figures are in keeping with the known higher risk of failure associated with ventouse and a gradual decline in the use of forceps. There is an understand-

able reluctance to use two types of delivery instruments in case both fail, making subsequent caesarean section more difficult because of impaction of the fetal head in the pelvis.^{7 w4}

Breech and twin deliveries can also lead to second stage caesareans. Planned caesarean section is safer than vaginal birth for a term breech fetus with respect to immediate neonatal outcomes.⁸ The place of emergency caesarean is less clear when a mother presents in labour and reaches full cervical dilatation with an unexpected breech presentation. In the absence of an experienced and skilful obstetrician to perform assisted vaginal breech delivery, women are advised to undergo an emergency second stage caesarean.

Ironically, even though singleton births are far more common than twin delivery, more data exist on second stage delivery rates and risks for the second twin than for singletons. Several authors have reported rising rates of caesarean delivery for the second twin after the first twin has delivered vaginally.^{9 w5} The commonest reasons for this include non-vertex presentation of the second twin, fetal distress, cord prolapse, and placental abruption. If the second twin is 25% larger than the first, then the risk of caesarean delivery for this twin is significantly increased.¹⁰ Recent data suggest that the second twin's risk of hypoxia is five times greater than that of the first after vaginal delivery of the first twin.¹¹

Currently, about 10% of second twins are delivered by caesarean section after the first has been delivered vaginally: 10 years ago, the rate was 5%.¹² As many as two thirds of these caesareans are preventable and are due to operator inexperience—such as inability to perform internal version and breech extraction of a malpresenting second twin or poorly timed rupture of membranes leading to premature cervical contraction.^{w5} The ongoing Canadian multicentre study of mode of delivery of twins (the “twin birth study”) may further increase the caesarean section rate if results suggest safer delivery of twins by elective caesarean. However, many women expecting twins will present in labour before their planned caesarean section date of 38–39 weeks.

Despite problems relating to the inexperience of obstetric trainees, the United Kingdom is making great

strides in terms of structured training, assessment of competencies, and consultant delivered intrapartum care. Nevertheless, it is essential to recognise the need for obstetricians to maintain and develop their skills if women are to be offered safe alternatives to caesarean section when complications arise in labour.

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Emergency naloxone for heroin overdose

Should it be available over the counter?

Naloxone saves lives. Timely injection of the opiate antagonist naloxone rapidly reverses the respiratory suppression of heroin overdose,^{1 2} a major cause of death in young people.^{3 4} Recent regulatory amendments increase significantly the extent to which naloxone can now be used to prevent opiate overdose deaths. In June 2005, in the Medicines for Human Use (Prescribing) (Miscellaneous Amendments) Order,⁵ the United Kingdom added naloxone to the limited list of medicines that may be given by injection “by anyone for the purpose of saving life in an emergency” (alongside emergency adrenaline, glucagons, and snake antivenin). An emergency dose of naloxone may now be given to prevent death

from heroin overdose without specific medical instruction. In August 2005, New York state passed legislation (bills A.7162-A (Dinowitz) and S.4869-A (Hannon)) establishing that physicians may lawfully prescribe naloxone explicitly for potential future opiate overdose, including the situation where it may be administered to someone else.

Many people who take overdoses of heroin die even though friends or family are present.⁶ Peers often attempt to resuscitate,⁷ sometimes incorrectly,^{w1} and death may occur from respiratory arrest before

Summary of good practice with take-home naloxone and extra references w1-w7 are on bmj.com

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