The problem for assertive community treatment in England is that reducing the use of inpatient services is seen as the main measure of success. This correlates with the cost of the service, but its great success in enabling staff to work with clients that community mental health care teams had failed to engage for years seems to be being ignored. The model is popular with staff working in assertive community treatment and with clients.[3 7] With an increasing focus across all health specialties to provide services in the community, it seems premature to dismantle assertive community treatment teams now that we really know how they should work.

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Umbilical cord clamping after birth

Better not to rush

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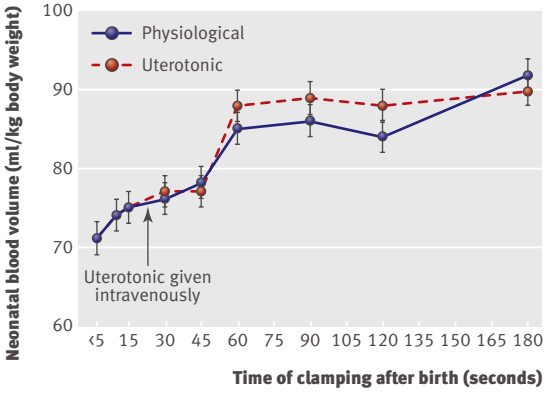
Early clamping and cutting of the umbilical cord is widely practised as part of the management of labour, but recent studies suggest that it may be harmful to the baby. So should we now delay the clamping?

Early clamping of the cord was one of the first routine medical interventions in labour. Its place in modern births was guaranteed by its incorporation into the triad of interventions that make up the active management of the third stage of labour. The earliest references are clear about the other two components of active management—oxytocin to contract the uterus and prevent postpartum haemorrhage, and controlled cord traction to prevent retention of the placenta.[1] But early cord clamping had no specific rationale, and it probably entered the protocol by default because it was already part of standard practice. When this package was shown to reduce postpartum haemorrhage in the 1980s early cord clamping became enshrined in the modern management of labour.



Changes in neonatal blood volume with increasing delay of cord clamping, with and without the use of a uterotonic. Adapted from the paper by Yao et al[6]

But it has not been accepted everywhere. In Europe, although 90% (1052/1175) of units recommend uterotonic prophylaxis, only 66% (770/1175) recommend early cord clamping and 41% (481/1175) recommend controlled cord traction.[2] The rate of early cord clamping varies from 17% (4/23) of units in Denmark to 90% (98/109) in France.[2]

So what is the evidence behind cord clamping? For the mother, trials show that early cord clamping has no effect on the risk of retained placenta or postpartum haemorrhage.[3 4] Evidence from a Cochrane review supports this result—prophylactic oxytocin reduces the risk of postpartum haemorrhage whether the rest of the active management package is adopted or not.[5]

But what about the baby? Initially, the cord blood continues to flow, sending oxygenated blood back to the fetus while respiration becomes established, ensuring a good handover between the respiratory systems. At the time of the first fetal breath, however, the reduction in intrathoracic pressure draws blood into the lungs from the umbilical vein. So long as the cord is unclamped the average transfusion to the newborn is 19 ml/kg birth weight, equivalent to 21% of the neonate's final blood volume (figure).[6] The final amount is unaffected by the use of oxytocics or the position of the baby relative to the placenta.[6 7] Three quarters of the transfusion occurs in the first minute after birth. The rate of transfer can be increased by the use of intravenous uterotonics (to 89%), or by holding the newborn 40 cm below the level of the placenta.[6 8]

For the term baby, the main effect of this large autotransfusion is to increase iron status and shift the normal curve of the neonatal haematocrit to the right. This may be life saving in areas where anaemia is endemic. Here, late cord clamping increases the average haemoglobin concentration by 11 g/l at four months.[9] In the developed world, however, there

have been concerns that it could increase the risk of neonatal polycythaemia and hyperbilirubinaemia. Trials show this is not the case. Delayed cord clamping seems to drive up mean haematocrit values and serum concentrations of bilirubin, without increasing the number of infants needing treatment for jaundice or polycythaemia.[7]

For preterm babies the beneficial effects of delayed cord clamping may be greater. Although the studies are smaller, delayed clamping is consistently associated with reductions in anaemia, intraventricular haemorrhage, and the need for transfusion for hypovolaemia and anaemia.[10] The one exception may be growth restricted babies who are already at risk of hypoxia induced polycythaemia.[11]

How should we approach cord clamping in practice? In normal deliveries, delaying cord clamping for three minutes with the baby on the mother's abdomen should not be too difficult. The situation is a little more complex for babies born by caesarean section or for those who need support soon after birth. Nevertheless, it is these babies who may benefit most from a delay in cord clamping. For them, a policy of "wait a minute" would be pragmatic.[11] Indeed, this first minute is already largely spent on neonatal assessment. This could be done in warmed towels on the birthing bed or the mother's abdomen after vaginal delivery, or on the mother's legs at caesarean section. Cord clamping need only take place when transfer to the resuscitation trolley is required. For medicolegal purposes it will be important to document the time at which the cord was clamped, as delayed clamping reduces pH values in umbilical artery blood samples.[12]

There is now considerable evidence that early cord clamping does not benefit mothers or babies and may even be harmful. Both the World Health Organization and the International Federation of Gynecology and Obstetrics (FIGO) have dropped the practice from their guidelines. It is time for others to follow their lead and find practical ways of incorporating delayed cord clamping into delivery routines. In these days of advanced technology, it is surely not beyond us to find a way of keeping the cord intact during the first minute of neonatal resuscitation.

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Obstructive sleep apnoea

Trials are under way to determine the still unclear associations between sleep apnoea and cardiovascular outcomes

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The prevalence of obstructive sleep apnoea in its severe form is about 2% and 0.5% in middle aged men and women respectively.[1] Pharyngeal collapse during sleep causes recurrent frustrated inspiratory efforts, oscillating levels of blood oxygen, and disturbed sleep, which may, or may not, lead to excessive daytime sleepiness.[2] The main treatment for moderate to severe obstructive sleep apnoea and excessive daytime sleepiness (obstructive sleep apnoea syndrome) is nasal continuous positive airway pressure applied during sleep. A meta-analysis[3] clearly showed that this treatment is highly effective in preventing apnoea in such patients, thus relieving symptoms and improving self assessed quality of life.[4]

The main debate over treatment is whether obstructive sleep apnoea is also an important independent risk factor for vascular disease (such as myocardial infarction, heart failure, and stroke), both in those with and without current vascular problems. Some of the potential mechanisms suggested include acute and long term effects on blood pressure, endothelial dysfunction, deoxygenation-reoxygenation injury, increased swings in pleural pressure causing cardiac loading, and increased platelet coagulation. Unfortunately, obstructive sleep apnoea coexists with many features of the metabolic syndrome. Indeed, the condition is common in type 2 diabetes, with a prevalence of 20%,[5] and such patients tend to share a similar body shape. Obesity of the upper body provokes obstructive sleep apnoea through deposition of fat in the neck,[6] compromising pharyngeal patency, and visceral obesity also provokes insulin resistance, as well as being a better predictor of vascular risk than general obesity.[7]

This means that cross sectional and cohort studies, apparently linking obstructive sleep apnoea and vascular disease, cannot prove causation (especially as simple indices such as waist to hip ratio do not fully control for visceral fat[8]), and thus can only generate hypotheses. Obstructive sleep apnoea probably acts partly as a marker for the metabolic syndrome in such studies.

Non-randomised interventional trials have suggested

Developing nurse prescribing in the UK

Prescribing should be integrated into education for advanced nursing practice

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The United Kingdom has seen a recent major expansion in the scope of nurse prescribing, reflecting government policy[1] and the international trend towards advanced nursing practice.[2] In the 1990s it became possible for community based nurses to prescribe independently from a limited formulary, thereby facilitating their traditional roles such as wound management and bowel care. From 2000, further changes in legislation radically altered the professional restrictions on prescribing, and since May 2006 independent nurse prescribers in England have been able to "prescribe any licensed medicine for any medical condition within their competence."[3] Each stage of the development of nurse prescribing in the UK has had its advocates and detractors, but this recent initiative has proved the most controversial, fuelling debate about the adequacy of training of nurse prescribers and risks to patient safety.[4]

The training for independent nurse prescribers consists of a standalone course of 26 days of theory, 12 days of mentored practice, and five assignments. More than 8000 nurses in the UK have now been trained as independent or supplementary prescribers and thus have access to the full formulary that doctors use,[5] and many more district nurses and health visitors prescribe from a restricted formulary. Nevertheless, in England in 2005 just 0.6% of prescription items came from nurses working in the community[6]; this proportion increased to almost 0.9% in April to September 2006.[7] Figures for this later period show that those nurses with access to the full formulary were prescribing drugs previously restricted to doctors, including antimicrobial agents, asthma drugs, nicotine replacement products, and statins.[7] Comparative figures for secondary care are not available.

Early international analyses of nurse prescribing indicate that nurses prescribe within their areas of competence and according to guidelines.[8] These findings were echoed by a study of independent nurse prescribing in the UK in which an expert panel judged the appropriateness of prescribing decisions made during consultations.[9] Nevertheless, detractors are ready to pounce on any contrary findings, and an example is a recent study that raised concerns about the pharmacological knowledge and decision making ability of nurse prescribers. In this study, 25 nurse prescribers were presented with a number of prescribing scenarios.[10] Only a minority were able to identify more than half of the pharmacological problems relevant to each case and to suggest an appropriate course of action. This led *Pulse* (a weekly newspaper for general practitioners) to state that "nurses are 'floundering' in their new prescribing role."[11] In contrast, the authors suggest that the participants would have referred patients to the general practitioner for matters that were outside their area of competence.

This type of problem is at the heart of the current debate about independent nurse prescribing in the UK. On the one hand, the training and competence of nurse prescribers continues to be called into question. On the other, it is argued that nurses can diagnose and treat conditions safely and effectively within their areas of competence. While it is possible to dismiss some of the criticisms as due to doctors' concerns about nurses encroaching on their traditional territory,[12] we believe that for nurse prescribing to contribute more to patient wellbeing in the future, certain educational and practice problems need to be dealt with.

A further expansion of nurse prescribing in the UK is likely in coming years, but the extent to which it develops will depend partly on National Health Service trusts and general practices having confidence in the safety and effectiveness of nurse prescribers and their value in meeting patient needs. Some issues will be clarified by current research studies and local experiences, but concerns are likely to remain about the adequacy of the standalone training module.[1]

To deal with these concerns and bring about a further step change in nurses' contribution to health care we believe that the "task" of prescribing should be incorporated within the broader framework of the internationally recognised clinical role of nurse practitioners. The current short training course for independent nurse prescribers was designed to allow rapid expansion of a prescribing workforce among experienced practitioners. It is now time to build prescribing into the development of advanced nursing practice[2] so that it becomes a complementary part of training in assessment, diagnosis, clinical decision making, audit, evaluation, and referral. This would provide a firmer foundation for nurse prescribers and help to strengthen the case for nurses having a greater role in prescribing.

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