

not be evidence based. In our example, both a treatment whose outcomes were uncertain and some difficult issues of early and late hazard (and how these were valued) had to be communicated in accessible language. The ethical communication of an offer of a relatively new treatment is also complicated by the various ways of expressing "current" mortality ("series so far," "last year," "last 10") that may give different estimates, particularly when mortality is changing rapidly over time. As a result it may be difficult to be honest with a patient or family without seeming evasive.

Logistical difficulties surround the introduction of a new treatment that minimises risk to patients while maximising the availability of the experience to the wider medical community. Ideally, institutions pioneering new treatments should have an acceptable record in related areas and have enough patients to enable rapid learning. This approach would see new strategies concentrated in a limited number of centres. Such centralisation and the possibility of having more than one specialist surgeon operating together could amplify the experience, while reducing the effect of an individual's learning curve. Both ideas, however, require movement of patients and some change of professional culture. Finally, an acceptable means of monitoring the change both institutionally and individually needs to be established so that institutional decisions and individual performance can be reviewed.

Conclusion

Many new operations are adopted outside a framework of formal ethical or scientific scrutiny. In our experience a new surgical strategy was accompanied by a learning curve while not only surgeons, but also the institution, adapted to the demands of the new treatment. Debate has made poor outcomes associated with learning less acceptable, both in the medical profession and among the general public. Frameworks must be developed that aim at maximising any benefit to a group of patients while minimising the risk to each individual.

We thank Adelaide Tunstall and Rebecca Clayton for their help in collecting the data and Fergus Macartney for his contribution to the original research question.

Contributors: CB initiated the formulation of the original study hypothesis, analysed the data, and was the principal author of the paper. RY initiated the research, collected the switch data, participated in data analysis, and helped to write the paper. DS collected and participated in analysis of the data on the Senning procedure and helped to write the paper. JD helped to interpret the data and to write and edit the paper. MdeL was involved in discussing core ideas and study design and contributed to the interpretation of the data and to writing the paper. RY is the guarantor.

Funding: None.

Competing interests: None declared.

- Jatene AD, Fontes VF, Paulista PP, Souza LCB, Neger F, Galantier M, et al. Successful anatomic correction of transposition of the great vessels: a preliminary report. *Arquivos Brasileiros de Cardiologia* 1975;28:461-2.
- Castaneda AR, Trusler GA, Paul MH, Blackstone EH, Kirklin JW, and the Congenital Heart Surgeons Society. The early results of treatment of simple transposition in the current era. *J Thorac Cardiovasc Surg* 1988; 95:14-28.
- Macartney FJ, Spiegelhalter DJ, Rigby ML. Medical management. In: Anderson RH, Macartney FJ, Shinebourne EA, Tynan M, eds. *Paediatric cardiology*. Edinburgh: Churchill Livingstone, 1987:421-2.
- DeLeval M, Francois K, Bull C, Brawn W, Spiegelhalter DJ. Analysis of a cluster of surgical failures. *J Thorac Cardiovasc Surg* 1994;107:914-24.

- Sarkar D, Bull C, Yates R, Wright D, Cullen S, Gewellig M, et al. Comparison of long term outcomes of atrial repair of simple transposition with implications for an arterial switch strategy. *Circulation* 1999;100(part III):76-81.
- Bonnet D, Bonhoffer P, Piechaud J-F, Aggoun Y, Sidi D, Planche C, et al. Long term fate of the coronary arteries after the arterial switch operation in newborns with transposition of the great arteries. *Heart* 1996;76:274-9.
- Deanfield JE, Camm J, Macartney FJ, Cartwright T, Douglas J, deLeval M, et al. Arrhythmia and late mortality after the Mustard and Senning operation for transposition of the great arteries. An eight year prospective study. *J Thorac Cardiovasc Surg* 1988;96:569-76.
- Ward CJB, Mullins CJB, Nihill MR, Grikka RG, Vick GW. Use of intravascular stents in pulmonary venous and systemic venous baffle obstructions. *Circulation* 1995;91:2948-54.
- Jatene AD. The switch operation for complete transposition. In: Becker A, Losekoot G, Marcelletti C, Anderson RH, eds. *Paediatric cardiology*. Vol 3. Edinburgh: Churchill Livingstone, 1981:218-24.
- Yacoub M, Bernhard A, Lange P, Radley-Smith R, Keck E, Stephan E, et al. Clinical and haemodynamic results of two stage anatomic correction of simple transposition of the great arteries. *Circulation* 1980;62:1190-6.
- Quaegebeur JM, Rohmer J, Ottenkamp J, Tuis T, Kirklin JW, Blackstone EH, et al. The arterial switch operation: an eight year experience. *J Thorac Cardiovasc Surg* 1986;92:361-84.
- Wernovsky G, Hougren TJ, Walsh EP, Sholler GF, Colan SD, Sanders SP, et al. Midterm results after the arterial switch operation for transposition of the great arteries with intact ventricular septum: clinical, hemodynamic, echocardiographic and electrophysiological data. *Circulation* 1988;77:1333-44.
- Kanter KR, Anderson RH, Lincoln C, Rigby ML, Shinebourne EA. Anatomic correction for complete transposition and double outlet right ventricle. *J Thorac Cardiovasc Surg* 1985;90:690-9.
- Sidi D, Planche C, Kachaner J, Bruniaux J, Villain E, Le Bidois J, et al. Anatomic correction of simple transposition of the great arteries in 50 neonates. *Circulation* 1987;75:429-35.
- Castaneda AR, Norwood WL, Jonas RA, Colon SD, Sanders SP, and Lang P. Transposition of the great arteries and intact ventricular septum: anatomical repair in the neonate. *Ann Thoracic Surg* 1984;38:438-42.
- Kirklin JW, Blackstone EH, Tchervenkov CI, Castaneda AR and the Congenital Heart Surgeons Society. Clinical outcomes after the arterial switch operation for transposition. *Circulation* 1992;86:1501-15.
- Hasan A, Pozzi M, Hamilton JRL. New surgical procedures: can we minimise the surgical learning curve? *BMJ* 2000;320:171-3.
- Lilford RJ, Braunholtz DA, Greenlagh R, Edwards SJL. Trials and fast changing technologies: the case for tracker studies. *BMJ* 2000;320:43-6.

(Accepted 12 April 2000)

Corrections and clarifications

Treating young patients with breast cancer

Our system for collecting declarations of competing interests failed partially for this editorial by J M Dixon and G Hortobagyi (19 February, pp 457-8). Because the *BMJ* failed to send Dr Hortobagyi a form, we did not receive a statement on competing interests from him. His coauthor, however, did receive a form and stated "none declared." We now have a statement from Dr Hortobagyi (see below). We apologise to him and to readers for our oversight.

"GH has served on ad hoc advisory boards for Genentech, Bristol-Myers Squibb, Novartis, CTI, and Eli Lilly over the past five years. He has received honorariums for public speaking, usually in the context of continued medical education meetings, from Genentech, Bristol-Myers Squibb, Novartis, and Aventis. He or members of his group have received or currently receive research grants from Genentech, Bristol-Myers Squibb, Novartis, AstraZeneca, and Aventis."

Lord, protect me from my friends

In this Soundings article by Liam Farrell (19 February, p 523) we failed to notice the curious claim that it is possible to view a child's inner ear with an oroscope. Doctors may, however, be able to view the middle ear (through the tympanic membrane) with an auriscope (or otoscope).