# **RESEARCH HIGHLIGHTS**

## IN BRIEF

#### MALE FACTOR INFERTILITY

Intraoperative use of a Doppler flow detector during gold-standard varicocele repair facilitates sparing of more arteries and ligation of more internal spermatic veins. Subinguinal microsurgery was performed on 213 men at the University of São Paulo, Brazil. Superior outcomes were achieved in the group of 90 patients whose spermatic vessels were systematically scanned using a sterile Doppler ultrasound probe.

**Original article** Cocuzza, M. *et al.* The systematic use of intraoperative vascular Doppler ultrasound during microsurgical subinguinal varicocelectomy improves precise identification and preservation of testicular blood supply. *Fertil. Steril.* doi:10.1016/j.fertnstert.2009.01.088 (2009).

#### SURGERY

A chart-review-based comparison has shown that a single surgeon at a 'center of excellence' achieves outcomes superior to those of a multi-surgeon team when implanting penile prostheses. Median implant cylinder length (2 cm greater), median placement time (34 min versus 94 min), iatrogenic failure rate (0% versus 14%) and revision-free survival were significantly better in the center-of-excellence group.

Original article Henry, G. D. et al. Centers of excellence concept and penile prostheses: an outcome analysis. J. Urol. 181, 1264–1268 (2009).

### SEXUAL DYSFUNCTION

Confirmation of the involvement of hydrogen sulfide in mammalian penile erection is one step closer. Using human corpus cavernosum harvested during male-to-female gender reassignment surgery, researchers detected expression of the substrate (L-cysteine) and enzymes from which hydrogen sulfide is synthesized. Exogenous supply of hydrogen sulfide or L-cysteine caused cavernosal strips to relax in a dose-dependent manner.

**Original article** d'Emmanuele di Villa Bianca, R. *et al.* Hydrogen sulfide as a mediator of human corpus cavernosum smooth-muscle relaxation. *Proc. Natl* Acad. Sci. USA **106**, 4513-4518 (2009).

#### **CLINICAL TRIALS**

Necessitating the completion of nonroutine tasks by both doctors and patients, and hampered by cost and regulatory requirements, randomized controlled trials are often unfeasible. A proposal to circumvent these barriers is based on the principle that randomization should not notably alter the clinical experience of either party. Minimizing eligibility criteria and attempting to randomize every patient are also cornerstones of the 'clinically integrated' methodology.

**Original article** Vickers, A. J. & Scardino, P.T.The clinically-integrated randomized trial: proposed novel method for conducting large trials at low cost. *Trials* **10**, 14 (2009).