Engineers accept that knowledge exceeds any individual, and reliability mandates extra capacity, fail-safes, and standard operating procedures, but especially attention to the team. Engineering also embraces ‘cognitive ergonomics’ to maximize mental processes (awareness, perception, reasoning) and expedite individualized responses.4 ‘Teamwork’ provides a useful prism through which to examine cognitive workload, decision making, reliability (vs safety vs efficiency), human–human interactions, human–computer interactions, and whether graduates are ‘fit for the task’. For example, if we were engineers then we would design checklists, simulations, rapid responses and service rotas based largely on whether they improve (or worsen) the team’s cognitive ability and problem solving. Hunningher nicely summarized this as the difference between ‘pseudo-teams’ and real teams. Ford wisely pointed out that we need high-functioning teams everyday, not just when excrement hits fans.

Traditionally, success has relied on the cult of the individual (Sir Lancelot Spratt comes to mind!).5 While more prosaic, modern heroes are those that create and direct high-performing teams (make way for Sully Sullenberger).1 While many critical care drug trials have recently been equivocal or negative, teams that could reliably implement those interventions still often had better outcomes. Perhaps, therefore, the effect of a functioning team matters more than a fortuitous drug. We also have drug trials with different results if the first few patients are excluded or included.6 This reminds us that teamwork takes time, and mastering teamwork probably improves outcome. If so, then we should measure teamwork’s dose–response effect.

There is danger that ‘teamwork’ is misinterpreted to mean nobody disagrees, nobody criticizes, or we strengthen our team by denigrating another. CCM and anaesthesia have a history of lambasting other teams (‘you call us too early,’ ‘you always wait too late’). These negative interactions can impact interspecialty teamwork for years. We love debating which team is best and which is worse. For example, anaesthesia, CCM, and surgery can all manage difficult airways . . . but which is the airway expert? This question is likely too simplistic. Teams are sometimes defined by subspecialty, but often by task or location.7 Provocatively, error rates appear higher when familiar procedures are performed in unfamiliar environments. For anaesthesia, ectopic intubation (done outside the operating room) may be more perilous because we are without our teams, and working with unfamiliar communication styles and subcultures. Regardless, if good teamwork were a drug we would study it rigorously and promote it widely.

Declaration of interest

None declared.

P. G. Brindley
Edmonton, Canada
E-mail: peter.brindley@albertahealthservices.ca

Bone cement embolism attached to central venous catheter

Editor—I read with interest the case report by Schummer and colleagues1 on the bone cement embolism attached to central venous catheter and applaud the team for the management of the case. In our centre, vertebroplasty is quite commonly performed. We use a general anaesthetic technique for most our patients and the majority of them do not require a central venous line insertion for this procedure and get transferred to the recovery room after the procedure. I have a few questions which I hope the authors can clarify. Is it a standard practice for central venous line insertion in patients undergoing this procedure? And do these patients routinely go to the intensive care unit after the procedure? It is highly likely that this episode of bone cement embolism would be missed without a central venous line. Also, as rightly pointed out, if this procedure was carried out under local anaesthesia, there should be an anaesthetist in attendance and the procedure undertaken with standard monitoring.

Declaration of interest

None declared.

J. A. Khan
Jeddah, Saudi Arabia
E-mail: drjameel@hotmail.co.uk

1 Schummer W, Schlonski O, Breuer M. Bone cement embolism attached to central venous catheter. Br J Anaesth 2014; 112: 672–4
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Reply from the author

Editor—We thank Dr Khan for his interest in our case report.1 He has raised some questions which we would like to answer. The
central venous catheters (CVCs) are not routinely inserted in patients undergoing vertebroplasty and these patients are not normally transferred to an intensive care unit (ICU).

The patient described in the case report underwent major spine surgery. This was the reason for CVC insertion and transfer to the ICU. Here, the cement was used only for pedicle screws. Dr Khan is right that it is rather likely that this episode of bone cement embolism would be missed without a central line. The intention to share this case with the readers of the BJA was to highlight possibly a not so rare complication which can have high impact on patient management. We are aware, however, that the true incidence of systemic cement embolization and the normal course of this event are unknown. Also the case should be seen as a plea for physiological monitoring in all patients undergoing even minor procedures where the cement is applied under pressure, like it is in vertebroplasties.

**Declaration of interest**

None declared.

W. Schummer  
Jena, Germany  
E-mail: cwsm.schummer@gmx.de

1 Schummer W, Schlonski O, Breuer M. Bone cement embolism attached to central venous catheter. *Br J Anaesth* 2014; **112**: 672–4  
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