

Assuring optimal intravascular catheter safety for both patients and users : an anesthesia perspective

K. STRAUSS

As in all developed countries, an aging European population will require more hospitalisations, more surgery and the use of more peripheral Intra-venous Catheters for complex treatment regimens. The anticipated rise in cancer with the need to operate and later infuse chemotherapeutic agents will require catheters which help prevent infection, infiltration and extravasation while at the same time protecting the user from blood exposure and accidental sharps injury. These demographic and prophylactic factors, along with the rise of health care-associated infections and 'super bugs', will promote increased use of integrated, closed, safety IV systems both in theatres and hospital wards. European anaesthesiologists and anaesthetists will play a crucial role in this evolution. The biggest difference between IVC's placed on the wards and those placed in theatres is that peripheral lines used in surgery tend to be of larger diameter

(14, 16 and 18 gauge) and the professional placing the line will probably not have to provide care and maintenance for it after the operation ends. Devices that reduce the risk downstream to patients of developing healthcare-associated infections (HAI) hold great promise of benefit in the era of under-funded health care systems, exhausted antibiotic armamentaria and the ever increasing incidence of serious healthcare infections such as MRSA (Methacillin-resistant *Staphylococcus. Aureus*). A 'closed' system may afford better protection against bacterial exposure than conventional 'open' ports and, because blood does not naturally escape from the catheter hub, these devices further minimise the risk of exposing the clinician to blood during the insertion procedure. The increase in safety devices will be driven by legislative as well as demographic, disease and individual factors.