Abstract:

Catheter related blood stream infection is an ever present hazard for those patients requiring venous access and particularly for those requiring long term medication. The implementation of more rigorous care bundles and greater adherence to aseptic techniques have yielded substantial reductions in infection rates but the latter is still far from acceptable and continues to place a heavy burden on patients and healthcare providers. While advances in engineering design and the arrival of functional materials hold considerable promise for the development of a new generation of catheters, many challenges remain. The aim of this review is to identify the issues that presently impact catheter performance and provide a critical evaluation of the design considerations that are emerging in the pursuit of these new catheter systems.

Reference: