Assessing the quality of Central Venous Catheter and Peripherally Inserted Central Catheter Videos on YouTube


Abstract:

Background - Video sharing networks such as YouTube have revolutionized communication. Whilst access is freely available uploaded videos can contain non peer-reviewed information. This has consequences for the scientific and health care community, when the challenge in teaching is to present clinical procedures that follow empirical methods.

Objective - To review 50 central venous catheter and peripherally inserted central catheter videos posted on YouTube. The aim was to appraise these videos using current evidenced-based guidelines.

Methods - We searched YouTube using the key words central venous cannulation and peripherally inserted central catheter insertion on September 21, 2012. We consecutively reviewed 50 videos for both procedures.

Results - There was poor adherence to evidence-based guidelines in the critiqued videos. There was a difference in adherence with the use of appropriate skin antisepsis in the 2 groups (18% for central venous catheters vs 52% for peripherally inserted central catheters;
p=0.009). And a large proportion in both groups compromised aseptic technique (37% for central venous catheters vs 38% for peripherally inserted central catheter; p=0.940). The use of ultrasound guidance during procedures was also different between the 2 groups (33% for central venous catheters vs 85% for peripherally inserted central catheters; p=0.017).

Conclusions - This critique of instructional videos related to the insertion of central venous catheters and peripherally inserted central catheters uploaded to YouTube has highlighted poor adherence to current evidence-based guidelines. This lack of adherence to empirical guidelines can pose risks to clinical learning and ultimately to patient safety.