How to avoid needle stick injuries in dental practice?

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As a developer and manufacturer of injection syringes for almost three decades, I have always been interested in providing the best possible injection solutions for the dental practice. I have also been very keen on solving the severe problem of accidental needle sticks in dentistry – a problem that has not decreased over the years.

All healthcare employers are obliged by European law to assess the risks from sharps injuries and to put appropriate measures in place to protect his staff. The new UK guide lines from HSE of March 2013 are taking it a bit further, and in my opinion they are giving very useful and specific advice on preventing the risks of needle stick injuries in dental practice: http://www.hse.gov.uk/pubns/hsis7.pdf.

To invent a good solution to prevent needle sticks in dental practice was a challenge for me, but an interesting one. Dental needles distinguish themselves from hospital needles by the two-ended cannula, which means that both the front and rear part of the needle must be safely protected. Furthermore, the ISO Standard for dental needles says that needles must be threaded and screwed onto a dental syringe, as opposed to the Luer-lock system commonly used in hospitals. Finally, it was important for me to come up with a solution that was **universal** (compatible with all brands of needles and syringes) and **easy to implement** in the daily procedures and associated with **limited costs** for the employer.

Other needle stick prevention systems available today do not address the fact that often *multiple injections* are needed in the same patient. Either you will have to change the needle for each injection in the same patient or just leave the syringe with an exposed, used needle on the tray. The first option takes extra time and brings up the consumption of needles and the latter is of course “no go” – it is far too dangerous!

The UltraSafe-Plus system from Septodont is an attempt to provide a safety measure integrated with the syringe by means of a barrel protecting the needle. After the first injection, the dentist or assistant will just slide the barrel over the needle *without in fact locking it*, and then put it back on the tray for a second injection. If you lock it, you cannot use it again. But to slide it forward without locking it creates a *false feeling of safety* as accidents and misunderstandings may easily occur.

In my opinion, CONTA-GUARD is the safest solution in the market today, as it protects the dentist and his staff during the *entire* injection procedure. And not less important – it accommodates the way injections are carried out in dental practice, and the free choice of dental syringes and needles remains.

The loaded syringe is simply left in the CONTA-GUARD De-/Recapping Stand for a second injection – without the need to change needles between injections in the same patient.

Furthermore, CONTA-GUARD prevents misunderstandings – you are never in doubt if a needle is new or was used before.

You might argue that placing the needle back into the sheath presents a risk, even though it is done with only one-hand. If the operator is in a hurry and not careful when recapping, by accident the needle could penetrate the side of the sheath. However in such rare cases, you would realize the problem immediately and the staff should be instructed beforehand how to safely remove the needle again if such incident should occur.

My point is that there is no single technical solution that protects 100% against needle stick injuries in dental practice. The human factor is always playing a role, so this is why the legislation points out that it is always the employer’s responsibility to train his staff and to implement the most efficient procedure in the market to prevent the risk of accidental needle sticks. In my opinion, CONTA-GUARD is the most efficient and solution available today – in all its simplicity it accommodates existing injection routines in dental practice.