

# Local Anaesthetics

## Update and Improve your Technique for Dental Surgeons, Dental Therapists & Dental Hygienists

### Wednesday 10<sup>th</sup> March 2010

#### Aims

To update the delegates in the methods available to achieve a successful local anaesthetic.

To examine aspects of dose and side effects

#### Objectives

By the end of the session all participants should –

- \*Understand the appropriate dosage calculation of local anaesthetic
- \*Understand the different methods of administration of infiltration technique
- \*Understand the different methods of administration of I.D. block technique

**1.00 pm Registration and refreshments,** will be in the Chapter House Coffee Shop which is located on the 2<sup>nd</sup> floor .

**1.30.** Introduction and Welcome Diane Bell DCP Tutor

**1.35 Improve your technique Chris Bell**

The session will open with a short power point presentation, during which delegates will be able to discuss techniques and share problems they may have encountered.

The second part of the course will be based around participation in small working groups, in a clinical area

**Vassia Karpeta-** Postgraduate tutor, will be available during the practical session to assist.

#### **Mid- session break**

Refreshments will be served in the coffee shop at an appropriate time.

**4.30.** Close

## **Needle Stick Injuries to Dental Staff**

To reduce the occurrences of these incidents we advise that **all sharps used during dental treatment are removed by the dental operator.** This includes needles, scalpel blades and suture needles. Everyone must be vigilant when removing scaler tips and burs and while preparing instruments for sterilisation.

### **The Risks**

The viral organisms that dental workers are most at risk from are hepatitis B (HBV), hepatitis C (HBC) and HIV although the risk from HIV is minimal. 'Needle stick injuries' can be differentiated from sharps injuries which wounds are caused by other items, glass, scalpel blades, dental burs, and hand instruments. Whilst various other 'sharps' provide an array of potential hazards to staff the needle stick is an obvious hazard, since needles are used frequently throughout the day good working practices must be in place to provide a safe environment.

The majority of injuries come from burs being left in the hand piece, the re-sheathing of needles and preparing used instruments for sterilisation.

### **The Management**

First the problem must be identified, risk assessed and discussed with all staff, once all staff understand the risks then protocols can be adopted.

The procedure for any injury is as follows

- \*Encourage the wound to bleed by squeezing it.
- \*Wash the site with soap preferably an anti-bacterial and water then dry thoroughly.
- \*Cover the injury with a water proof dressing.
- \*Note the patient's details including any relevant medical history.
- \*Inform the practice manager, or the person responsible for health and safety
- \*Complete an incident report form and record the incident in the accident book.

### **In the event of an injury that is cause for concern**

If the patient's medical history indicates that they are high risk you should telephone Public health Laboratory Services, St. Michaels Hospital St. Michaels Hill and ask for advice Telephone 0117 9291326 or, if outside Bristol, the Public Health Laboratory that covers your area. For out of hour's service, contact your local Accident and Emergency Department for advice.

## **Prevention**

Working on the premise that most accidents are preventable it has been suggested that reducing the number and serious consequences of needle stick depends on five key strategies (Robinson 1998)

- \*A universal level of infection control in the practice
- \*Good surgery design
- \*Safe working practices
- \*Universal glove use
- \*Vaccination of all clinical staff for Hepatitis B

One of the most critical aspects of a practice protocol is in the re-sheathing and disposal of used needles, to reduce the risk, we suggest that the re-sheathing and disposal of the needle is carried out by one person only, the operator.

## **Risk Assessment**

A risk assessment is a means of examining what in your workplace could cause harm to people, to help you decide if you have taken sufficient precautions, or you need to do more in order to prevent accidents.

The process of carrying out a risk assessment is relatively straightforward and involves the following stages (*Management of health and Safety at Work Regulations 1999 ACOP*)

- 1) Identify hazards- a hazard is something which has the potential to cause harm e.g. sharp instrument.
- 2) Assess the risk – risk is the likelihood that the hazard will cause harm, this will depend on a number of factors, who is exposed to the hazard how many staff, the frequency of exposure, how might the hazard cause harm and what are the consequences, what existing precautions/controls are in place and are these adequate and suitable?
- 3) Introduce further controls, where hazards cannot be removed, control measures must be introduced to reduce the risk of the accident happening and limit the consequences.
- 4) Record the findings, review and revise, all risk assessments should be reviewed periodically to help determine if the controls are appropriate and adapt as necessary.