

DECONTAMINATION OF INSTRUMENTS IN DENTISTRY

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DENTAL INSTRUMENTS

- **IN UK APPROXIMATELY 3500 MILLION INSTRUMENTS ARE DECONTAMINATED AND PROCESSED EACH DAY**
- **MOST OF THESE ARE CRITICAL**

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WHAT METHODS ARE USED FOR DECONTAMINATION?

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- **MANUAL**
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- **ENZYME**

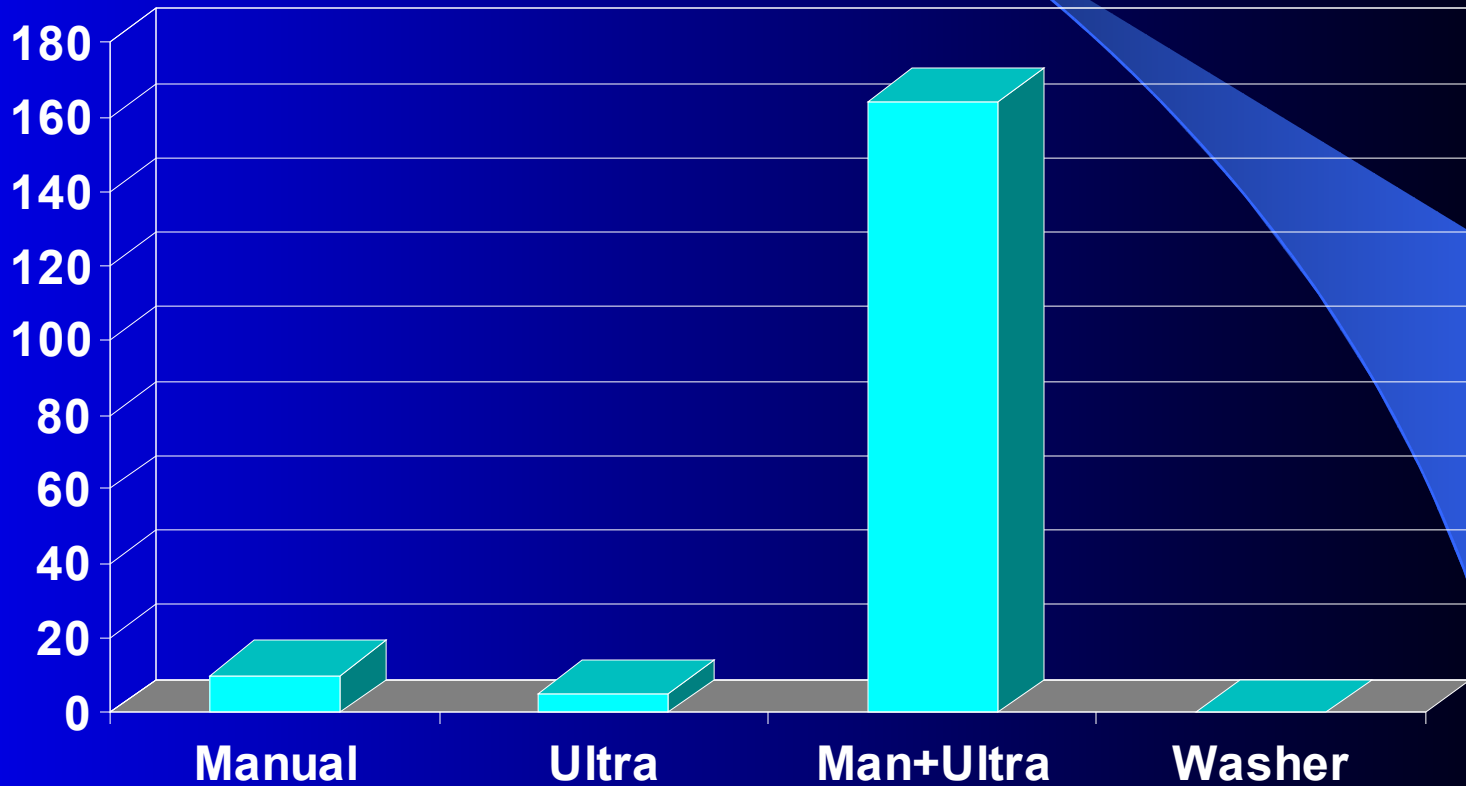
WHAT METHODS ARE USED FOR DECONTAMINATION?

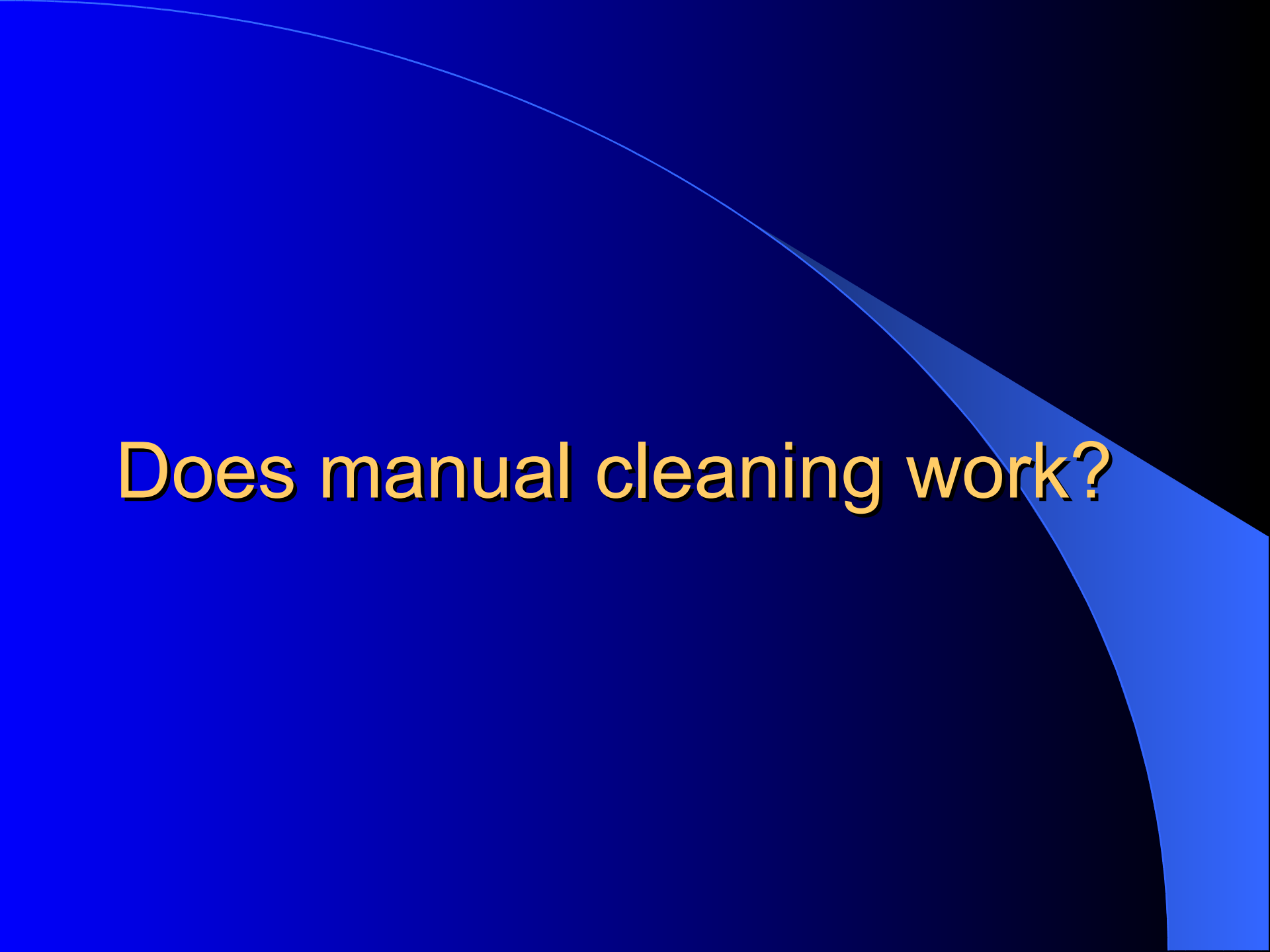
- **MANUAL**
- **ULTRASONICS**
- **ENZYME**
- **WASHER/DISINFECTORS**

The background is a dark blue gradient. A thin, light blue curved line starts from the top left and arcs across the upper half of the slide. On the right side, there is a vertical rectangular area with a lighter blue gradient, transitioning from dark blue at the top to a lighter blue at the bottom.

Dr AJ Smith
Consultant Microbiologist
University of Glasgow

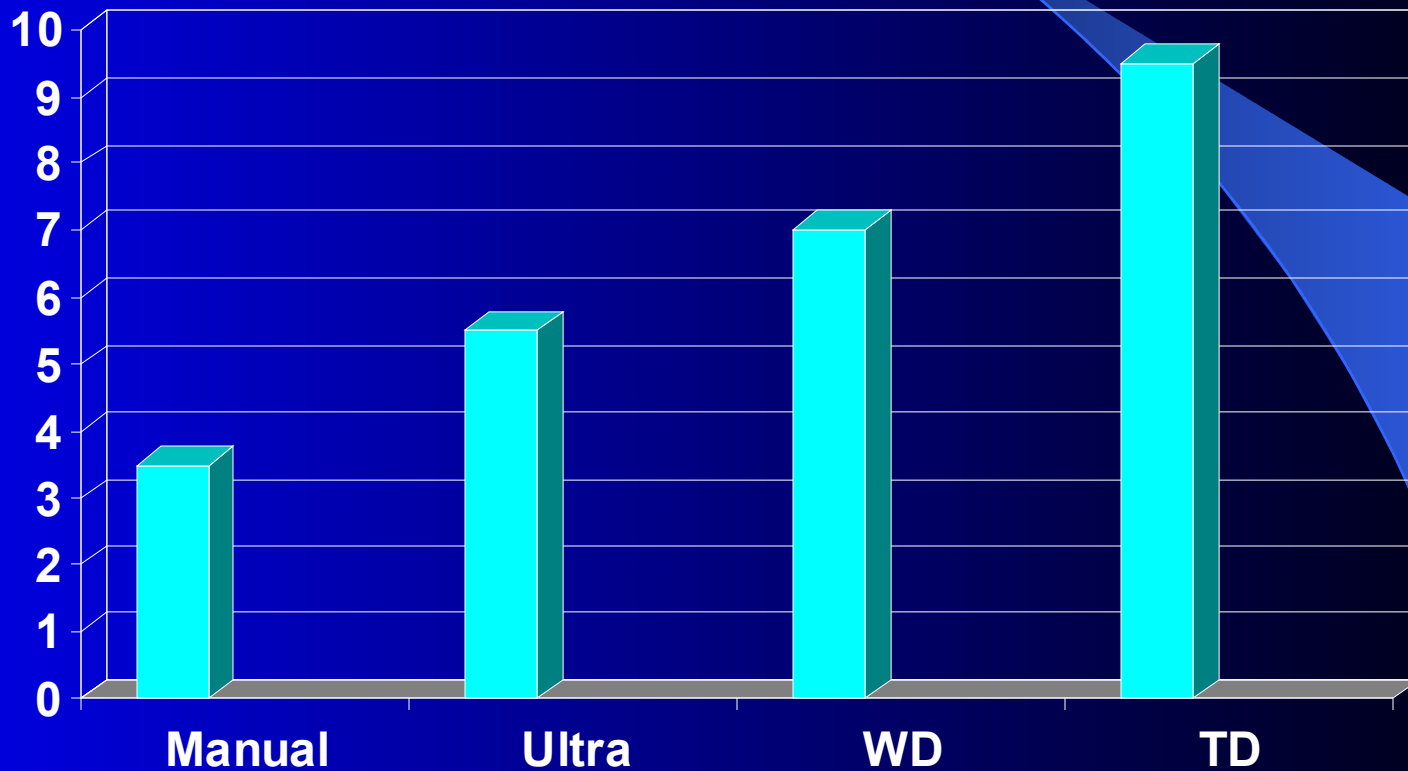
METHODS OF DECONTAMINATION





Does manual cleaning work?

DECONTAMINATION OF BURS (Whitworth *et al* 2004)



MANUAL CLEANING

- DOES NOT WORK
- NOT REPRODUCIBLE
- DANGER OF SHARP'S INJURIES



**Does ultrasonic treatment
clean dental instruments?**

Ultrasonic cleaners in dentistry

- **Often ineffective due to poor servicing**

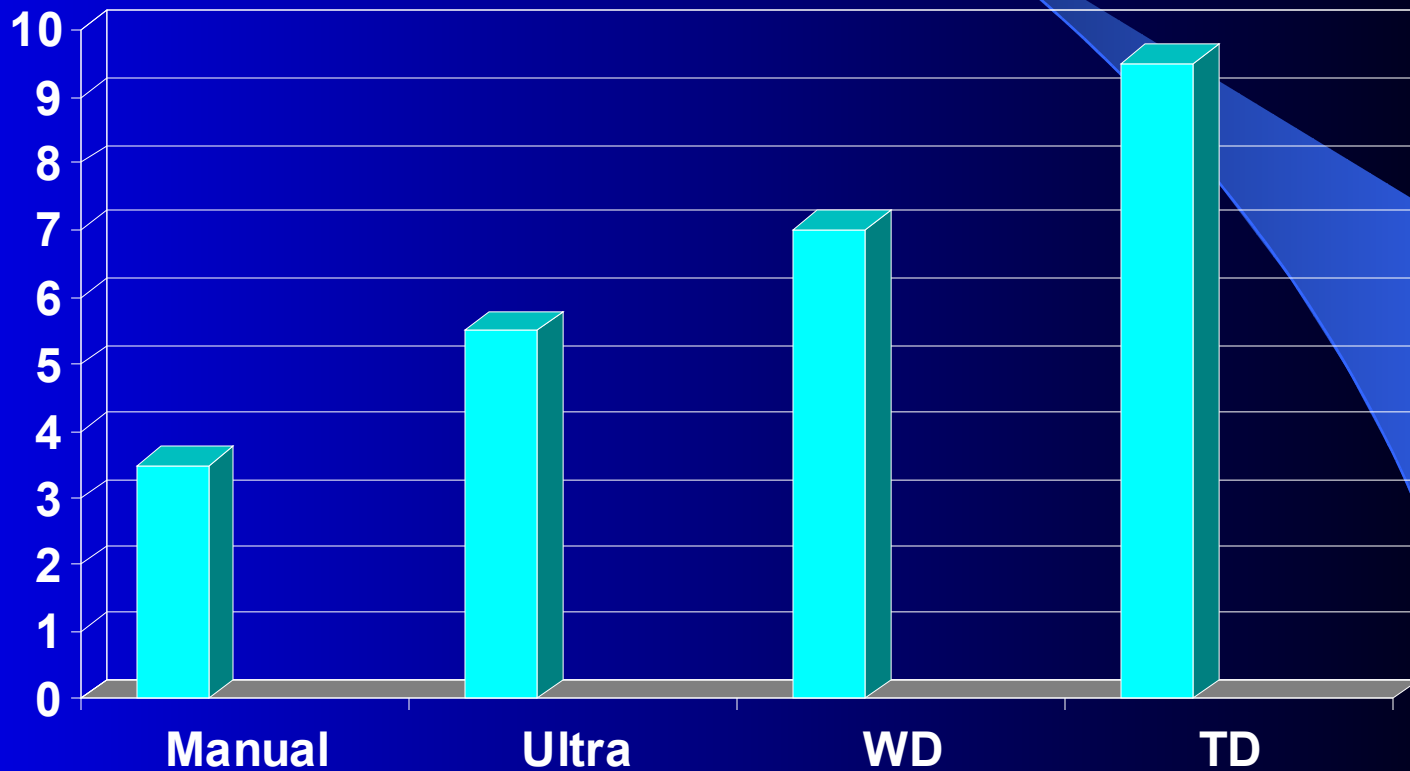
Ultrasonic cleaners in dentistry

- **Often ineffective due to poor servicing**
- **Cycle is often interrupted**

Ultrasonic cleaners in dentistry

- **Often ineffective due to poor servicing**
- **Cycle is often interrupted**
- **Inappropriate solutions used**

DECONTAMINATION OF BURS (Whitworth *et al* 2004)

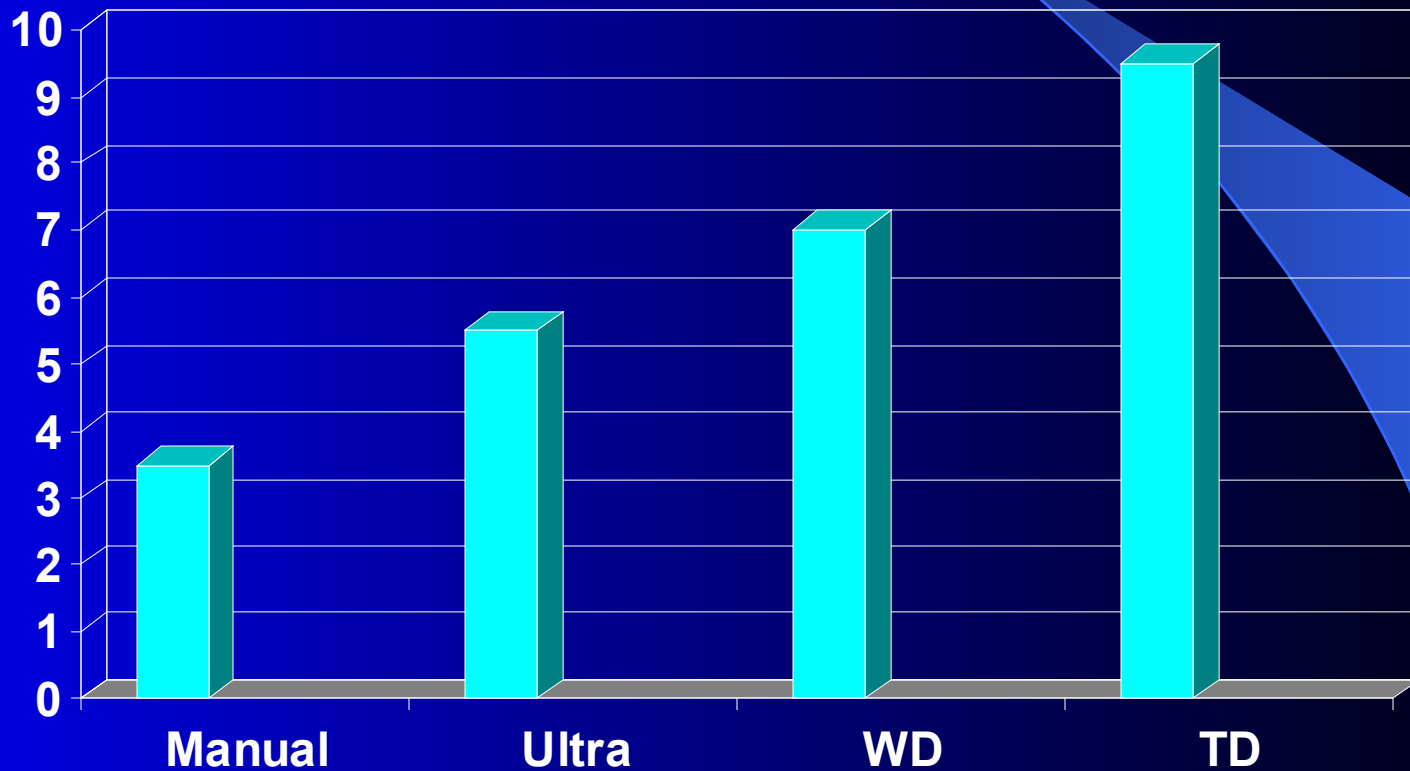


Enzyme solutions

A decorative graphic consisting of a large, light blue arc that starts from the top left and curves towards the bottom right. A smaller, darker blue triangle is positioned at the end of this arc, pointing towards the bottom right corner of the slide.

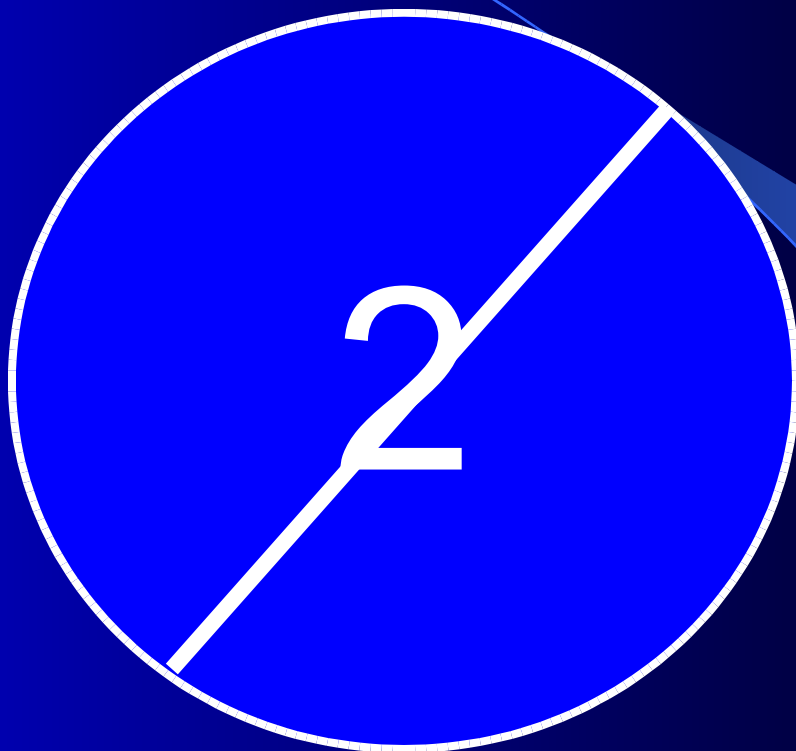
Washer disinfectors

DECONTAMINATION OF BURS (Whitworth *et al* 2004)



The background is a solid dark blue. A thin, light blue curved line starts from the top left and arcs towards the right. A larger, lighter blue triangular shape is positioned on the right side, pointing towards the center.

Single use instruments



Single Use Instrumentation

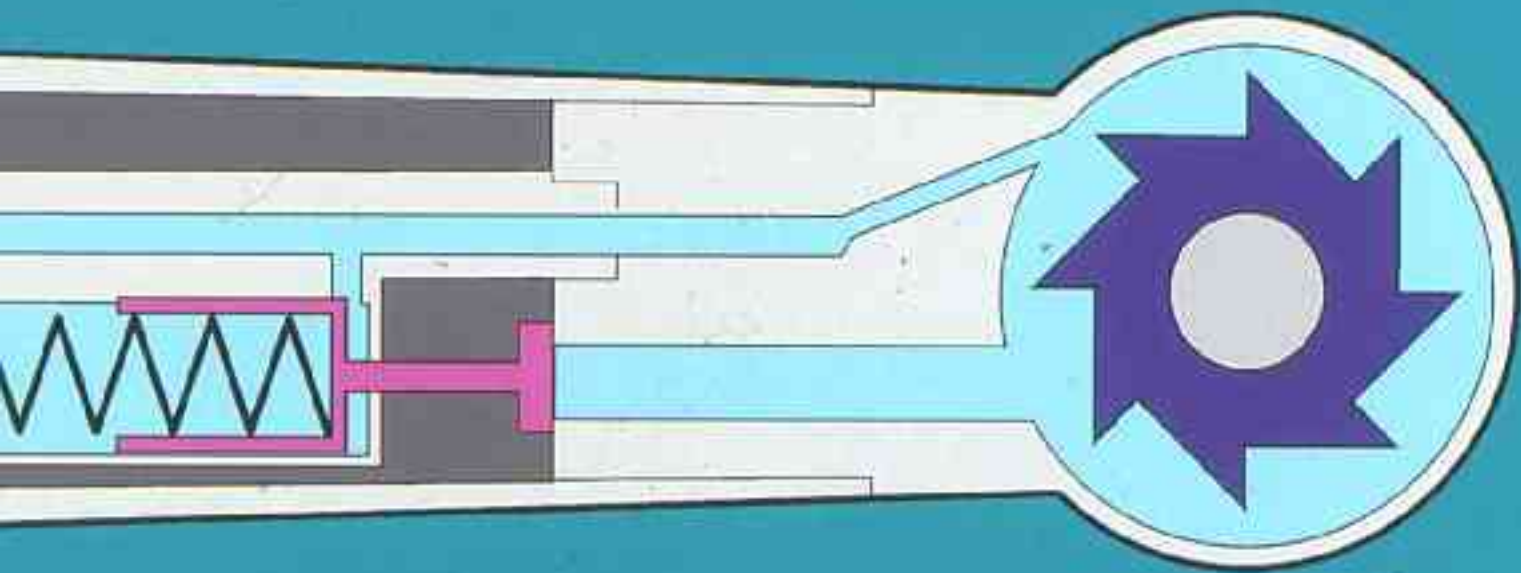
- 54% of dentists
- 75% dental nurses

**WERE NOT FAMILIAR WITH SINGLE
USE SYMBOL**

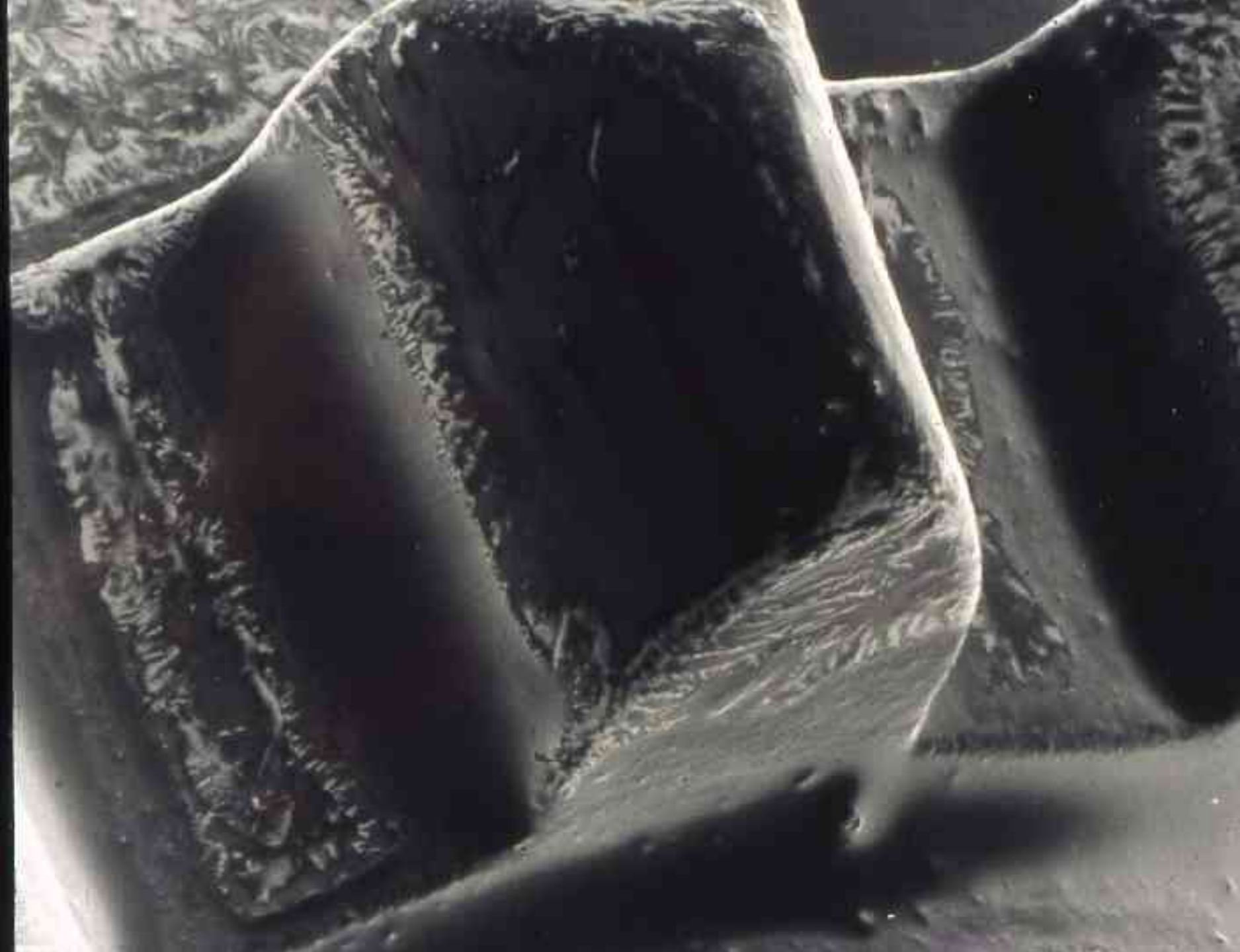
Specific dental instruments

SPECIFIC INSTRUMENTS

- **BURRS (DRILLS)**
- **MATRIX BANDS**
- **HANDPIECES (DENTAL DRILLS)**









CONCLUSIONS

- **METHODS OF DECONTAMINATION OF DENTAL INSTRUMENTS IS POOR IN DENTAL PRACTICE**

CONCLUSIONS

- METHODS OF DECONTAMINATION OF DENTAL INSTRUMENTS POOR IN DENTAL PRACTICE
- POOR UNDERSTANDING OF WHAT IS REQUIRED

Executive orders a dramatic improvement in sterilisation procedures

By Ian Smith
Scottish Political Editor

THE scandal of Scotland's filthy dental practices was exposed yesterday as a major study showed chronic hygiene failures in surgeries.

Medical chiefs have sent letters to every dentist in the country ordering them to dramatically improve sterilisation procedures in a bid to protect the public against infection.

The move came after a comprehensive investigation by the Scottish Executive found serious lapses in the way dentists clean the equipment they use to inspect people's mouths.

Basic dental instruments such as mirrors, dental probes and syringes are being re-used without being properly cleaned.

The survey also found dentists repeatedly using equipment which should be thrown away after one operation, and high levels of ignorance over 'use by dates' on tools.

The failures expose the public to

Hygiene shock as dentists are told to clean up filthy surgeries



Open wounds: The findings may shock patients

SOLUTIONS

- **DENTAL STUDENTS SHOULD BE TAUGHT CLEAR UNEQUIVOCAL DECONTAMINATION METHODS**

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- **THERE SHOULD BE CLEAR NATIONAL GUIDELINES**

SOLUTIONS

- **DENTAL STUDENTS SHOULD BE TAUGHT CLEAR UNEQUIVOCAL DECONTAMINATION METHODS**
- **THERE SHOULD BE CLEAR NATIONAL GUIDELINES ON DECONTAMINATION IN DENTAL PRACTICE**
- **CENTRALISATION OF DECONTAMINATION AND STERILISATION**