Infection control and positioning of the operating team

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Position of the patient and the operator

- Good access to the operative field
- Clear view
- Comfort of the staff
- Comfort and safety of the patient
- Reduction in the movement of the operator (twisting of the trunk, elevation of the arm above the shoulder)
Work circle

- Staff is working in a circle of 50 cm
- Centered with the patient’s mouth
- Divided into 4 zones
- Different according to the dominant side of the operator
Righthanded operator
Static zone

Operator's zone

Assistant's zone

Transfer zone

Lefthanded operator
Operator’s zone

- This is where the operator is during the treatment session
- This is where the patient is entered and dismissed
Transfer zone

- This is where the instruments and materials are transferred out of the view of the patient.
- Handpieces and the bracket table can be moved into this area.
Assistant’s zone

- Assistant is situated at the 3 o’clock position
- Narrow zone with one working surface
Static zone

- No movement – instrument transfer in this zone
- Mobile cart or the assistant’s table can be placed here
Balanced posture

Feet on floor
Balanced posture

- Back straight
- Elbows are at sides by the trunk
- Seating on the whole of the chair
- Tights are parallel to the floor
- Foot is in full on the floor
Position of the operator compared to the patient

14 to 18 inches
Operator’s position related to the patient

- Dentist in balanced posture
- Patient in supine position
- Nose of the operator in 35-40 cm from the patient’s mouth
Patient’s proper position:
Supine position
Head

Parallel with the floor
Assistant remains in the 3 o’clock position during the entire session.
Proper position of the operator and the assistant

4 to 6 inches
Aim of the four-handed dentistry: Instrument transfer

- Every instrument and material is delivered by the assistant to the operator throughout the whole session via standardized movements.
Advantages of the four-handed dentistry

- Decreased physical load
  - Teamwork
- Good organization
- Self-consciousness of the patient is increased
- Increased success
- Saving time
Conditions

- Training
- Proper dental unit
- Standard localization of the instruments and the materials
Instrument transfer I.

- Simple safe procedure with minimalized movement, in which the speed is not relevant.
- Location is the **transfer zone** under the chin and above the chest of the patient.
Instrument transfer II.

- Operator is in the „ready-to –start-position” start where the hands are at the two edges of the zone, thumbs are in an upright position.
- By changing of the instruments the parallel transfer technique is used: the handle of the instruments are parallel.
- Instrument on the tray should be positioned according to the expectable order.
Instrument transfer III.

Next instrument is picked up by grabbing with three fingers of the assistant’s left hand of the tray and turning it antoclockwise until it reaches the operator’s palm, in the meantime she grabs the previous instrument with her small finger and places it onto the tray.

- Forceps and plaugers are picked up and transfered practically at their working end. Forceps is obtained back in her right hand while she delivers the next instrument with her left hand.

- Dentist do not pick up instrument direct from the tray.
Task Point on the Body Center

Left-right shoulder, arm and leg rotation axis references

Horizontal interpupillary

Horizontal position of the shoulders

Task point on the body centers at the heart position

Loosely hanging elbows

Horizontal position of the hip line

Horizontal position of the knees. Left-right and of the thighs, less than 30 degrees
BALANCED POSTURE

- MID-EAR TO PUPIL OF EYE LINE ON COMMON HORIZONTAL PLANE

- TASK PERFORMER POINT AT LEVEL HEART-BREAST-A

- ERECT UPPER BODY

- DOWNWARD SLOPE OF UPPER THIGH

- BASE OF PELVIS (BUTTOCKS) AND BASE OF PATELLA (KNEECAP) ON COMMON HORIZONTAL PLANE

- FEET FIRMLY PLACED ON FLOOR
Creates maximum perception and allows relaxed finger access to the oral cavity.
Paralleling aids perception.

Maxillary occlusal surfaces are parallel to operator's body.
Mandibular occlusal surfaces are facing the operator's facial plane.

Maximum patient support.
Relaxed spine allows comfortable head positioning.

Balanced operator position.

Power point is parallel to long axis of teeth and is on operator midline.