Putting on (donning) Personal Protective Equipment (PPE) for aerosol generating procedures in Endoscopy

**Principles for donning PPE**

- Short clean nails, no nail polish, no jewellery, no wristwatch.
- Ensure safe fitting of your glasses, because you should not touch your face/glasses afterwards, tie hair back.
- Ensure that healthcare workers are sufficiently hydrated.
- Select suitable PPE in correct protection level and size.

**outside the procedure room**

1. **Hand hygiene**
   - Attention: Hand hygiene is always the starting point.
   - Decontaminate hands with alcohol gel.

2. **Protect your hair**
   - Disposable hairnet
   - Wear hairnet during endoscopic procedures and endoscope reprocessing.

3. **Protect your body**
   - Long sleeved, water-resistant gown (EN 14126)
   - Fully cover torso from neck to knees.
   - Cover arms to the end of the wrists.
   - Fasten neck and waist ties.
   - Ask a second operator to assist in closing up the back.

4. **Protect your face and eyes**
   - Surgical mask (DIN EN 146683)
   - FFP2 / FFP3 respirators (DIN EN 149) depending on risk level
   - Safe closure of straps.
   - Adjust and mould the nose part with light pressure using your hands and light pressure.
   - Fix mask tightly around nose, cheeks and chin.
   - If the mask does not fit well, check the size.
   - Test FFP2 / FFP3 masks for correct fit and function (see IFU).
   - Protect eyes by using goggles and / or full-face-shield
     - Place goggles over mask and eyes.
     - Finally place face shield to protect mask and face from contamination.
     - Adjust the headband to fit.

5. **Protect your hands**
   - For examination - surgical gloves (EN 455)
   - For endoscope reprocessing – chemical resistant (EN 374)
   - Double gloves in case of infectious patients like COVID 19
   - Ensure that cuff of gloves cover cuff of gown.
   - Select appropriate size and quality.

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## Removal of (doffing) Personal Protective Equipment (PPE) for aerosol generating procedures in Endoscopy

### Principles for removing PPE
- PPE should be removed in a systematic way that minimises the potential for cross contamination
- If possible, have a colleague watch you removing PPE to provide reassurance you have the right technique to prevent contamination

### Inside the procedure room

#### 1. Remove gloves

**Attention: Gloves are contaminated**
- Grasp the outside of glove with the opposite gloved hand
- Peel off first glove, hold removed glove in gloved hand
- Slide the fingers of the un-gloved hand under the remaining glove at the wrist, peel off the remaining glove over the first glove
- Discard gloves in designated contaminated clinical waste container

#### 2. Hand hygiene

**Attention: Hands are contaminated after wearing gloves**
- Decontaminate hands with alcohol gel in order to protect yourself

#### 3. Remove gown

**Attention: Gown front and sleeves are contaminated**
- Unfasten neck, a second operator can assist in untying the back
- Only touch inside of gown
- Pull down gown by using a peel-off technique from neck/ shoulders
- Turn the gown inside out, fold and roll into a bundle
- Discard in a designated contaminated waste container

#### 4. Hand hygiene

**Attention: Hands decontamination before leaving the procedure room**
- Decontaminate hands with alcohol gel
- Leave the procedure room

### Outside the procedure room

#### 5. Hand hygiene

**Attention: Hands decontamination before touching your head**
- Repeat hand hygiene before removing face protection in order to protect yourself

#### 6. Remove face and eye protection

**Attention: Front side of googles, face shields, masks and hairnet might be contaminated, Remove face protection in the following order:**

I. First remove face shield / goggles
II. then remove mask
III. finally remove hairnet
- Lift back part of the retraining straps by using both hands
- Use a peel-off technique by pulling away from behind
- Discard single-use devices or decontaminate reusable device immediately
- If your hands get contaminated in between steps, perform hand hygiene immediately

#### 7. Hand hygiene

**Attention: Hands need to be decontaminated after taking off all PPE**
- Decontaminate and wash hands after removing all PPE
- Using correct technique to ensure all area of hands are clean

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### Outside the procedure room

6. **Hand hygiene**
   - Perform hand hygiene before putting on PPE

7. **Protect your hair**

8. **Protect your body**
   - Put on long-sleeved fluid repellent disposable gown

9. **Protect your face and eyes**
   - For low risk patients
     - Adjust and fix the mask tightly
     - Use face shield to protect the mask and your face from contamination

10. **Protect your face and eyes**
    - For high risk patients
     - Use FFP 2/ FFP 3 masks, goggles and face shield in high risk patients

11. **Protect your hands**
    - Gloves over cuff of gown
    - Double gloves in case of infectious patients

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Removal of (doffing) personal protective equipment (PPE) for aerosol generating procedures in Endoscopy

Remove PPE in a systematic order that minimises potential cross contamination

Inside the procedure room

1. **Remove gloves**
2. **Hand hygiene**
3. **Remove gown**
4. **Repeat hand hygiene**

Outside the procedure room

5. **Repeat hand hygiene**
   - Decontaminate your hands before touching your head

6. **Remove face protection**
   - Do not touch outside of shield, googles or mask
   - They might be contaminated

7. **Hand hygiene**
   - Decontaminate and wash hands after removing all PPE
   - Using correct technique to ensure all area of hands are clean

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