



# Nasopharyngeal Specimen Collection for Coronavirus

(County of San Mateo, 2020)

# Introduction

- ▶ Why nasopharyngeal specimen collections?
  - ▶ To identify pathogens
  - ▶ To identify asymptomatic carriers of easily transmitted disease organisms
- ▶ Correct collection and handling of the swabs assists in the accurate identification of pathogens with minimal contamination from normal bacterial flora
- ▶ Sterile cotton tipped swabs are used to sample inflamed tissue & exudate from the nasopharynx
- ▶ The swabs are immediately placed in the sterile culture tube containing a transport medium and sent to the lab

# Equipment

- ▶ Gloves
- ▶ Tissue
- ▶ Sterile, flexible cotton-tipped swab
- ▶ Tongue blade
- ▶ Sterile culture tube with transport medium
- ▶ Specimen label
- ▶ Laboratory biohazard transport bag
- ▶ Optional: mask with face shield or mask and goggles, gown, commercially prepared kit with flocked swabs, laboratory request form

# Preparation of Equipment

- ▶ Inspect all equipment and supplies
- ▶ If a product is expired, its integrity is compromised, or it's defective, remove it from patient use, label it as expired or defective, and report the expiration or defect



# Implementation

- ▶ Verify the practitioner's order.
- ▶ Gather the appropriate equipment.
- ▶ Perform hand hygiene.
- ▶ Confirm the patient's identity using at least two patient identifiers.
- ▶ Provide privacy.
- ▶ Explain the procedure to the patient and family (if appropriate), according to their individual communication and learning needs

# Implementation

- ▶ Tell the patient that the procedure may produce the need to gag or the urge to sneeze during the swabbing but that the procedure takes less than 1 minute.
- ▶ Instruct the patient to sit erect at the edge of the bed or in a chair, facing you.
- ▶ Perform hand hygiene.
- ▶ Put on gloves and other personal protective equipment as necessary

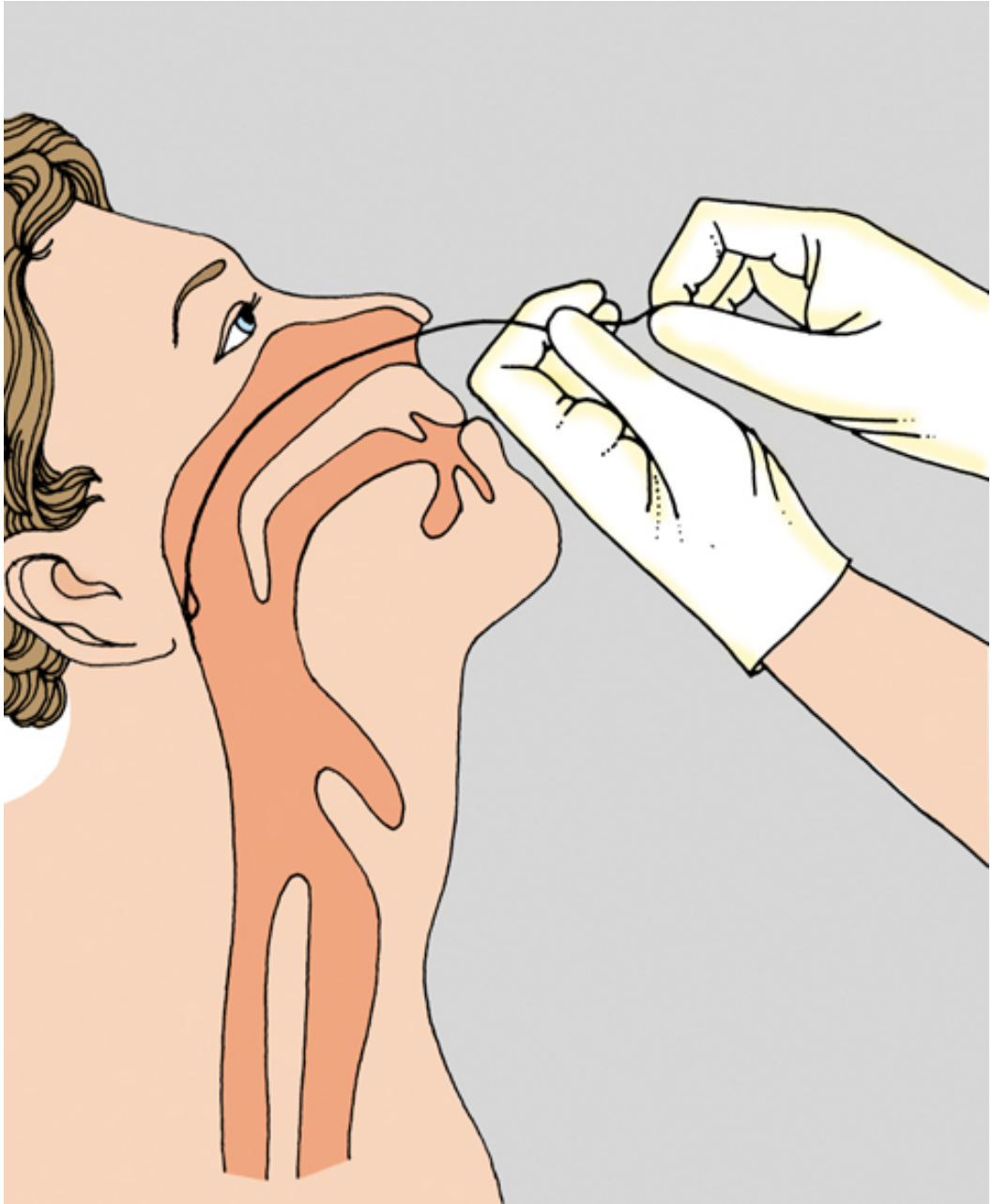
# Implementation

- ▶ Instruct the patient to blow the nose into a tissue *to clear the nasal passages.*
- ▶ Determine the more patent nostril by instructing the patient to exhale and occlude one nostril at a time.
- ▶ While it's still in the package
  - ▶ Bend the sterile, flexible cotton-tipped swab in a curve
  - ▶ Measure the distance from the patient's nostril to the ear *to determine the distance to insert the swab* (half the distance measured)
  - ▶ - Open the package without contaminating the swab.

# Implementation

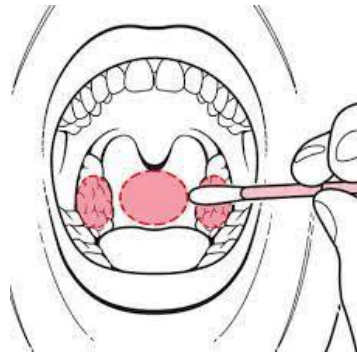
- ▶ Instruct the patient to cough *to bring organisms to the nasopharynx for a better specimen.*
- ▶ Instruct the patient to tilt the head back at a 70-degree angle.
- ▶ Pass the swab gently through the patient's more patent nostril into the nasopharynx
  - ▶ Keep the swab near the septum and the floor of the nose,
  - ▶ Insert the swab straight back until the posterior nasopharynx is reached (distance from the nostrils to the sternal opening of the ear) (LabCorp, 2020)
  - ▶ Rotate the swab gently 2 to 3 times and hold for 5 seconds *to absorb secretions*, and then remove it.





# Implementation

- ▶ If unable to obtain nasopharyngeal swab alternatively may do an oropharyngeal swab
  - ▶ Depress the patient's tongue with a tongue blade
  - ▶ Pass the bent swab up behind the uvula.
  - ▶ Rotate the swab quickly and then withdraw it.



# Implementation

- ▶ Remove the cap from the sterile culture tube
- ▶ Insert the swab into the transport medium
- ▶ Break off the contaminated end of the swab
- ▶ Close the culture tube tightly
- ▶ Perform hand hygiene

# Implementation

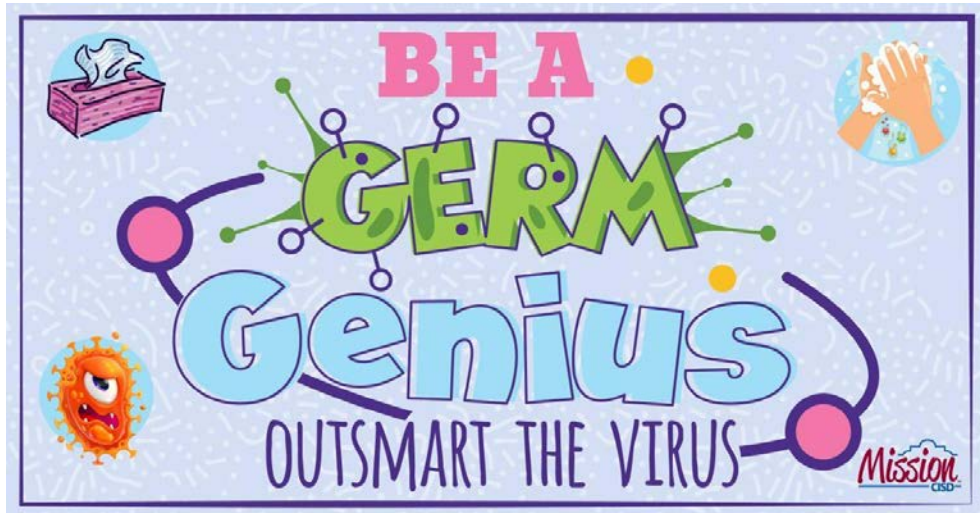
- ▶ Label the culture tube in the presence of the patient *to avoid mislabeling*
- ▶ Complete a laboratory request form if necessary
- ▶ Immediately send the culture tube to the laboratory in a laboratory biohazard transport bag, *because a delay in transporting the specimen to the laboratory may damage it and affect the accuracy of the results*
- ▶ Perform hand hygiene
- ▶ Document the procedure

# Special Considerations

- ▶ When collecting a nasopharyngeal specimen from an infant or a young child
  - ▶ use a specially designed midturbinate nasal flocked swab equipped with a collar that prevents excessively deep insertion into the nasopharynx.
- ▶ Note on the request form any recent antibiotic therapy the patient received
- ▶ If possible, collect a nasopharyngeal specimen for culture before starting the patient on antimicrobial therapy, as ordered.
- ▶ If you're collecting a nasopharyngeal specimen to isolate a possible virus, check with the laboratory for the recommended collection technique.

# Patient Teaching

- ▶ Discuss hygiene and infection-control techniques for upper respiratory secretions with the patient and family.



(Mission CSD, n.d.)

# Complications

- ▶ Laryngospasm may occur after nasopharyngeal specimen collection if the patient has epiglottitis or diphtheria.
  - ▶ Keep resuscitation equipment nearby.

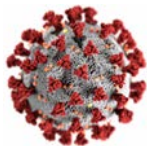
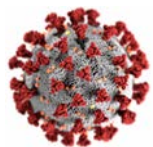
# Documentation

- ▶ Record
  - ▶ Date, time, and site of nasopharyngeal specimen collection
  - ▶ any recent or current antibiotic therapy.
- ▶ Note whether the specimen has an unusual appearance or odor
- ▶ Document
  - ▶ teaching you provided to the patient and family (if appropriate),
  - ▶ their understanding of that teaching
  - ▶ any need for follow-up teaching



# Bibliography

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