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European Association of Urology



Letter to the Editor

What Does COVID-19 Mean for the Pathology-Urology Interaction?

During the current COVID-19 pandemic, some important details must be considered in the interaction between pathology and urology. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is extremely contagious and can be lethal, so pathologists and laboratory workers must be extremely cautious when handling fresh urological specimens [1].

The frequency of surgical specimens in urology being submitted for pathology evaluation is decreasing during the COVID-19 crisis. Nevertheless, some surgeries such as orchidectomy for testicular tumors, cystectomy for nonmetastatic muscle-invasive bladder cancer, and some kidney cancer procedures cannot be delayed, although each case and patient obviously deserves a specific evaluation.

When receiving fresh samples (eg, urine, surgical specimens), pathologists should be given information regarding the patient's COVID-19 status. We are aware that in a daily practice or an emergency setting this information can be difficult to obtain.

The World Health Organization has recently published recommendations for handling COVID-19–positive specimens, defining transport conditions, how to deliver samples (full patient identity), and how to inform patients about their COVID-19 status. Pneumatic tube systems must not be used, specimens must be delivered by hand, and transport must be according to good biosafety practices and safety recommendations. It is mandatory to have specific non-leaking bags or containers with the patient's identity, and a clearly written specimen form. Laboratory workers and pathologists must use appropriate protective equipment such as glasses, a medical mask, sleeves, gloves, a laboratory coat, and specific aprons. Working under a laboratory extractor is mandatory in case of COVID-19 positivity. This applies to urine as well as surgical specimens [2]. Snap-frozen specimens should be minimized as far as

possible; if indispensable, they should be handled using the same safety precautions as mentioned above.

The European Association of Urology guidelines contain no formal recommendations for fresh-frozen sections [3]. If a fresh-frozen specimen is absolutely necessary, the same protections for technical and medical staff must be applied. The main problem is persistence of SARS-CoV-2 on inanimate surfaces such as cryostats; the virus can survive temperatures of 20 °C, the temperature used for cutting of fresh-frozen sections [4]. The virus remains on surfaces such as glass, metal, and plastic for up to 9 d, but can be inactivated by surface disinfection with ethanol (62–70%), hydrogen peroxide 0.5%, or sodium hypochlorite 0.1% within 1 min. Other procedures are less efficient [5]. Therefore, it is extremely important to reduce fresh-frozen sections to a strict necessity basis, as cryostat disinfection takes a long time and many laboratories have only one cryostat available for fresh-frozen sections. Formalin significantly decreases the infectivity of the virus on day 1, and a temperature of 56 °C for 90 min, 67 °C for 60 min, or 75 °C for 30 min seem to render the virus noninfectious [3]. Paraffin for inclusion is mostly used at a temperature of 60–65 °C for 120 min, so fixed and embedded tissue sections are most likely not infectious.

Taking all this information together, we ask urologists to provide complete clinical information with each specimen if possible and to refrain from submitting fresh-frozen sections for evaluation.

Conflicts of interest: The author has nothing to disclose.

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