

## **ESPEs Recommendations in a Covid-19 pandemic**

In order to contain Covid-19 outbreak and support the requirement of various European Health Systems to deal with this dramatic pandemic, it is necessary to adhere to a number of indications that apply to pediatric surgeons and have been addressed by most governments.

1. Postpone all elective surgery according to institutional or local guidelines
2. Consider a number of time-dependent diseases requiring elective non-deferrable surgery
3. Prepare to encounter Covid-19-positive patients requiring urgent surgical treatment

On the ground of these considerations, it is likely that a number of Covid-19-positive pediatric patients will require some sort of urgent surgical treatment. For this aspect, institutions will need to set procedures and protocols in order to be prepared and to cope with all criticalities. Given the limited evidence at present to support one approach over the other, we strongly suggest institutions and Scientific Societies keep monitoring emerging evidence.

### **Recommendations**

As a summary, we suggest the following concerning laparoscopic, thoracoscopic and retroperitoneoscopic procedures when facing a Covid-19-positive pediatric patients:

- Dedicate a theatre for urgent procedures on Covid-19-positive patients
- Avoid unnecessary night-time operating
- Consider conservative treatments, whenever safely possible
- Dedicate minimally invasive columns and reusable instrumentation
- Prefer disposable instrumentation and cables
- Use low-pressure CO<sub>2</sub> insufflation
- Use low-power electrocautery
- Prefer closed-systems CO<sub>2</sub> insufflation and desufflation systems
- Avoid leaks through ports (valved and/or balloon ports, small skin incisions)

Of note, before writing those recommendations the ESPES scientific team did a PRISMA research about MIS and COVID 19: “one-hundred and sixteen papers were identified through PubMed and 61 through Embase searches. A further 5 documents regarding recommendations or position statements from Scientific Societies worldwide were identified with a web search. After duplicate removal, a total of 120 papers were screened for relevance. A total of 11 full-text documents (3 documents and 8 peer-reviewed papers were assessed and turned out to be eligible to address all concerns related to the adoption of minimally invasive surgery (involving pneumoperitoneum, prenumoretroperitoneum or pneumothorax creation) in pediatric patients...”

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