

Recommendations for activities in visceral and digestive surgical departments within the AP-HP at stage 3 of the COVID-19 epidemic

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The COVID-19 epidemic has dictated a major redistribution of the resources dedicated to our surgical operations, with a reduction in the number of hospital beds, and critical care redirected towards hospitalising infected patients. Furthermore, a very large proportion of anaesthetists/critical care doctors and non-medical staff have been reassigned to treating patients with COVID-19+. Going forward, we may see a shortage of consumables intended for anaesthetics and critical care. This has led us to significantly reduce our workload.

In the same way as cancer, surgical operations are in themselves a very serious risk factor for coronavirus infection and death. Therefore it seems necessary to suggest some ideas to be considered regarding our patients' surgical treatment, in order for the current epidemic, as far as it is possible, not to effect their prognosis, particularly for cancer patients.

The working group members have been in consultation with surgeons from the major centres for digestive surgery in the Ile de France region. These surgeons are focusing on the concept of urgent oncological treatment in relation to digestive cancers and the potential bad luck where there is a delay of several weeks in accessing surgical treatment.

These recommendations are being written while we are in phase 3 of the epidemic (peak). Hence, they are flexible, depending on the time and local availability.

1. General recommendations:

- Given the repercussions of a COVID + status, both for patients and for the care facility where they are hospitalised, it is advisable, wherever possible, to screen for infection in all patients who are likely to be operated on. Screening should be systematic (PCR or CT chest scan) in patients being operated for cancer.
- The current practice tends to be to transfer all surgical pathologies which do not require specific treatment to private facilities or to PSPH clinics so that larger structures can treat patients requiring critical care. However, it is better not to transfer COVID + patients into facilities that have been relatively spared by the epidemic. Similarly, it is better to define COVID + facilities where infected patients can be treated in preference.
- All postponed operations must be traceable, by defining a level of urgency in order to make these easier to reschedule once the epidemic comes to an end.

The need to reschedule a pre-operative consultation with an anaesthetist
(which

frequently has already taken place before the postponement of the operation) also needs to be collected due to the potential congestion of anaesthetics consultations when the epidemic comes to an end.

- All scheduled operations for non-urgent, benign conditions must be postponed *as a matter of course*, apart from conditions where there is an imminent risk of complications.

2. Surgical emergencies

Ever since the start of the epidemic, there seem to be fewer surgical emergencies in public hospitals. There may be a number of different reasons for this: transfer to private clinics or PSPH, delay in consultation or no consultations at all due to confinement and/or the fear of going to a hospital. This situation may be the source of a spate of severe clinical presentations which may lead to increased morbidity.

When they do present, surgical emergencies must be treated without delay and as priority cases.

3. Liver transplants

The 3 liver transplant programmes (Beaujon, Paul Brousse and Pitié) remain operational, prioritising the most urgent transplants. It is advisable to carry out SARS-CoV-2 screening for the donor and the recipient just before the transplant takes place. If it were positive, the transplant would be contraindicated, but this may clash with the availability of RT-PCR depending on the facility and the technique's sensitivity where the patient is asymptomatic. The alternative would be to carry out a chest scan immediately pre-operatively.

The progression of the COVID-19 epidemic may considerably reduce the number of beds available in critical care units that are "COVID-free" and that are required for the early post-operative phase of the transplant. A situation like this may make it necessary to pool transplant resources and set aside and safeguard a single transplant location for the AP-HP.

4. Digestive cancer treatment: recommendations by organ

In a general sense, all resources must be marshalled to avoid compromising treatment strategies and the chances of recovery in digestive cancer patients where resection is indicated, as established in multidisciplinary consultative meetings. However, this principle needs to take into account the available resources in terms of critical post-operative care and patient comorbidities, such as the increased risk of severe complications and death associated with COVID-19 in cancer patients who are operated on. Sometimes there are temporary alternatives. The option of possible holding treatments and expected outcomes should be carefully examined.

The following general principles apply to all types of cancer:

- Depending on the local situation, operations requiring a post-operative stay in critical care should be restricted as far as possible

- Postpone operations for patients where postponing surgery does not effect their prognosis. Choose those cases where the risk/benefit balance associated with the operation is the best (type of cancer - tumour status - response to a neo-adjuvant treatment - life expectancy)
- The patient's COVID+ status should prompt caution before scheduling cancer surgery
- Ensure that postponed operations can be tracked.

a. Oesophageal cancer (adenocarcinoma and squamous cell)

The main factor limiting an oesophagectomy (with or without thoracotomy) in the present situation is the need for an extended period of hospital critical care following the operation. In all cases, it is recommended to start treatment with radio chemotherapy for adenocarcinomas and squamous cell carcinomas. If there is a complete clinical response, monitoring will be put in place, with an oesophagectomy as a rescue package, if there is a relapse over the course of the epidemic. Where there is a partial response, the period following radio chemotherapy can be extended by up to 12 weeks. However, it is better to await phase 4 of the epidemic (decline) before rescheduling this operation, depending on local conditions.

b. Cancer of the stomach and the oeso-gastric junction

The same policy of rescheduling the operation must be used where there is a foreseeable requirement for post-operative critical care following gastrectomy (inter-thoracic anastomosis by thoracotomy, a second operation, co-morbidities, etc.) In other cases, it is advisable to find a holding solution in order to postpone the surgery into phase 4 of the epidemic: neo-adjuvant chemotherapy up to 8 treatments.

c. GIST tumours

Depending on lesion size and the foreseeable wait for, surgery, wait for treatment or holding treatment with imatinib until phase 4 of the epidemic (decline) before scheduling a surgical resection.

If the surgery is complex or the lesion is difficult to resect, treatment with imatinib

d. Non-metastatic colorectal cancer:

Resections for localised cancers performed in line with current good practice (improved rehabilitation, laparoscopic approach, etc.) enable almost all patients to avoid hospitalisation in intensive care lasting 3 to 5 days.

There are no grounds for using holding chemotherapy where there is no scientific data and there is exposure to tumour complications where there is

disease progression and related to the current Covid-19 epidemic.

They therefore propose to conserve the current indications for curative colorectal resections in line with the TNCD (National Thesaurus of Digestive Cancerology) recommendations (Chapter 21 dated 23.03.2020):

- Colon cancer cT1-T3Nx: immediate resection
- Locally advanced colon cancer (cT4): neo-adjuvant chemotherapy
- Obstructive cancer: previous emergency ostomy, with chemotherapy or surgery deferred until after the epidemic.
- Rectal cancer with no indication for radiotherapy: immediate resection. Cancer following long radio-chemotherapy : resection between 7-12 weeks. Beyond this, the risk of complications and the complexity of the operation increases.

e. Liver metastases in colorectal cancer

- Metastases which can be easily resected (class 1) and which have already been treated with induction chemotherapy or with no indication for neo-adjuvant chemotherapy: prompt resection of the liver, prioritising limited laparoscopic resections. Where deferment is required, continue with chemotherapy and provide priority rescheduling when work restarts.
- Complex excision of metastases (class 2), specifically the classic secondary and ALPPS : case-by-case discussion depending on cancer-related urgency and local resources available. If scheduling of operations is stopped, continue with chemotherapy

f. Liver cell carcinoma

- Small cell liver carcinoma with percutaneous ablation or surgical resection must be treated promptly, prioritising surgery with limited laparoscopic resections.
- Large cell liver cancer must be operated on promptly, possibly after preparing as necessary for a major resection. If the scheduling of operations is stopped, priority scheduling as soon as the operating theatres reopen.

g. Cancers of the bile duct

- Single resectable intra-hepatic cholangiocarcinoma must be operated immediately without delay. Resectable forms but which have a poor prognosis (for example multi-nodular or N+) can be treated with induction chemotherapy.
- Bladder cancer must be operated and resected immediately for early forms that are localised within the bladder. Advanced forms are to be treated with palliative chemotherapy.
- Perihilar cholangiocarcinomas must be treated as usual by biliary drainage in cases of jaundice, portal embolisation in cases of extended

excision The increased post-operative morbidity rates with these operations demand the availability

of intensive care resources when deciding on the best dates for operating. If scheduled surgery is stopped, priority scheduling as soon as operations restart.

- Distal cholangiocarcinomas have the same indications as for head and pancreatic cancers

h. Rare hepatobiliary cancers

These must be analysed by a group of peers on a case by case basis bearing in mind the patients' comorbidities, the extent of the resection and post-operative morbidity, the availability of intensive care beds and holding or alternative treatments.

i. Pancreatic cancers

- Immediately resectable adenocarcinomas may be candidates for neo-adjuvant chemotherapy; this strategy has not been validated but seems to be reasonable to the community of HPB surgeons. Conversely, patients who have already received their neo-adjuvant chemotherapy, and even more so where it has been completed by radiotherapy, must be operated on within standard timeframes as far as it is possible to do so.
- Neuroendocrine cancers, small cancers on IPMN and small ampullary cancers are most frequently able to be resected at a later date, after case by case discussion with peers.

5. State of play

There are several problems to be anticipated:

1. The worsening of the epidemic and the reduction in surgical resources run the risk of leading to a short-term halting of all scheduled surgical operations, including for cancer. This scenario means that surgeons must plan and prepare for:
 - a. The transferring of activities for "simple" operations where our technical facilities do not add value (for example: simple colon, limited liver resection for metastases or CHC, left pancreatectomy).
 - b. The pooling of one or two of the AP's with COVID-free critical and intensive care beds for the most serious cases (for example: proctectomy, oesophagectomy, major hepatic resection, cephalic duodenopancreatectomy, liver transplant).
2. Plan ahead for phase 4 return to "normality" which will take a long time, with staff needing to take time off. There will be several problems:
 - a. Postponed operations will only be able to be carried out over a fairly long period
 - b. This means that there is the potential risk of saturation due to fatigue among medical and non-medical staff after the epidemic.

- c. The setting of priorities for operations to be rescheduled first should already be being discussed within teams, in order to properly plan this phase.

Examples of de-escalation rules/patients to be given priority in rescheduling

- A. Localised primitive tumours - to be prioritised by:
 - 1. symptomology
 - 2. the need for specific expert knowledge (non-transferable work)
 - 3. surgical risk
 - 4. the fact that is not possible to extend pre-operative treatment or the post-treatment period

- B. Metastatic tumours - to be prioritised according to:
 - 1. treatment tolerance and the options for extending the period of pre-operative treatment
 - 2. the expected benefit of the surgery
 - 3. the specific expertise
 - 4. the possibility of post-operative critical care hospitalisation

- C. Symptomatic patients outside of oncology where their wait cannot be extended should be prioritised according to their symptomology