

COVID-19 NET Patient Care Information for Providers

1. GENERAL: How is treatment for patients with NET/NECs likely to change during the COVID-19 outbreak?

Clinic and infusion center workflows and recommendations are likely to evolve rapidly and may vary by institution and region of country; much will depend on the scale and duration of the COVID-19 outbreak. For now, hospitals and treatment centers are preparing to see more patients with COVID-19, while implementing workflows that will allow for ongoing care of patients with cancer and other conditions (minimizing their risk of infection). Changes in workflow that may impact NET patients include:

- Video visits (telemedicine visits) are likely to play a much larger role in patient care (for follow-up visits and possibly new patient visits).
- Nonessential visits, laboratory tests and scans will likely be postponed.
- New enrollments in clinical trials will likely be very limited. Patients currently enrolled on a clinical trial should talk to their study team regarding potential changes to study procedures and follow up.
- Patients will be screened for risk factors and symptoms of COVID-19 before any in-person visits (and triaged to COVID screening clinics if symptoms are present).
- Patients with teams of providers (e.g., academic center plus local center) should work with their healthcare providers to identify the optimal care plan during the COVID-19 outbreak (minimizing in-person visits to multiple centers and potentially delaying planned treatments and/or choosing regimens which require minimal follow-up).

2. GENERAL: What should providers do to prepare their clinic for patients?

Both the CDC and ASCO have provided guidance related to preparing clinics for patient care during the COVID-19 outbreak:

ASCO [COVID-19 Provider & Practice Information](#)

CDC [Prepare to Care for COVID-19: Get Your Practice Ready](#)

In general, practices should consider implementing actions that impact staff preparedness, clinic preparedness, and patient scheduling.

- Prepare the clinic. Prepare waiting rooms and patients rooms. Know how to contact your health department. Stay connected with your health department to know about COVID-19 in your community. Step up precautions when the virus is spreading in your community. Assess and restock supplies now and on a regular schedule.
- Staff should be given additional training on symptom recognition, screening procedures, and use of [Standard Precautions](#) and personal protective equipment (PPE). In addition, staff should be trained on how to obtain SARS-COV2 testing for patients according to current testing guidelines.
- Cancer centers are recommended to limit access to the facility to one point of entry and screen all patients and visitors outside the facility, clinic, or office for COVID-19 symptoms and fever. Patients should be contacted the day prior to appointment for screening of symptoms of cough, sore throat, fever, or other flu-like symptoms. Patients should be rescheduled if symptoms are present. Provide a facemask to and rapidly isolate patients with suspected infection until more thorough screening or testing can be conducted.

- Know which of your patients are at higher risk of adverse outcomes from COVID-19.
- Along with postponing certain non-urgent visits, adoption of telemedicine is recommended for patients not requiring a physical exam, treatment or in-office diagnostics. The American College of Physicians has created a [tutorial](#) for deploying telemedicine services. Additional information regarding expanded access to telemedicine may be found on the [COVID-19 Government, Reimbursement & Regulatory Updates](#) page.
- The CDC has provided guidance for risk assessment and public health management of health care personnel with potential exposure. View CDC's risk factors, recommended monitoring, and work restrictions [here](#).
- There may be drug shortages as this pandemic progresses. The FDA maintains a [list](#) of drugs in shortage, which includes information on expected duration of shortage and alternative suppliers, when available. The FDA has requested that providers report any critical drug or biological products that may be in shortage or being closely monitored or rationed in your facility. See [How to Report a Product Shortage or Supply Issue to FDA](#).
- Clinicians and members of the cancer care team are likely feeling increased stress due to the COVID-19 pandemic. Be familiar with information on stress, tips to support physical and mental well-being, and links to additional resources for providers and staff.

See US Department of Veterans Affairs, [Managing Healthcare Workers' Stress Associated with the COVID-19 Virus Outbreak](#) ; National Academies, [Duty to Plan: Health Care, Crisis Standards of Care, and Novel Coronavirus SARS-CoV-2](#).

3. SOMATOSTATIN ANALOGS (SSA): Should SSAs like octreotide or lanreotide be delayed or stopped in NET?

The balance of potential harms that may result from delaying or interrupting SSA treatment versus the potential benefits of possibly preventing or delaying COVID-19 infection (by minimizing trips to the medical center) in NET patients is very uncertain. Clinical decisions should be individualized between a patient and their doctor to consider factors such as the risk of cancer progression if therapy is delayed, modified or interrupted; whether or not the tumor is functional (making hormones that cause symptoms); and the patient's tolerance of treatment. Some examples of specific situations are as follows:

- Patients with stable or slowly growing, nonfunctional, metastatic NETs on SSAs may opt to temporarily hold SSA, switch injections to a provider closer to home, increase interval between injections, and/or explore the option of home injection, with information available through www.ipsencares.com/ or www.us.sandostatin.com/carcinoid-syndrome/patient-support/mobile-administration-program/ (not available to Medicare, Medicaid, VA, DOD, TRICARE or patients from MA, MN, MI, RI).
- Previously untreated patients, with stable or slowly growing advanced nonfunctional NETs, may opt to postpone starting therapy.
- Patients with a resectable NET may opt to start SSA as an alternative to up-front surgical resection if treatment is needed. However, a few months of observation without therapy is likely a reasonable strategy in most patients waiting for surgery.
- Patients with functional NETs will likely need to start or continue SSA for symptom control. On a case by case basis, such patients should work with their health care providers to explore options including starting lanreotide or octreotide, use of subcutaneous octreotide for breakthrough symptoms, home injections of SSA, and extended intervals between injections (taking care to avoid exacerbation of symptoms). In some settings, liver directed therapy (hepatic artery embolization or ablations) may also be considered. Oral therapy with anti-diarrheals (such as imodium / lomotil), telotristat and other medications may be considered for additional symptom control.

4. SURGERY: Can/should surgery be cancelled or delayed?

Health care providers and patients will need to make individual determinations based on the potential harms of delaying needed cancer-related surgery, the specific situation at their hospital, and potential increased risk to the patient from COVID-19 exposure. The American College of Surgeons has defined 3 levels of impact of COVID-19 which are very useful for helping to decide on surgical priorities (www.facs.org/covid-19/clinical-guidance/elective-case/colorectal-cancer). These include:

Phase I: Semi-Urgent: Few COVID-19 patients, hospital resources not exhausted, institution still has ICU ventilator capacity, and COVID trajectory not in rapid escalation phase; surgery restricted to patients likely to have survivorship compromised if surgery not performed within the next 3 months.

Phase II: Urgent: Many COVID-19 patients, ICU and ventilator capacity limited, OR supplies limited or COVID trajectory within hospital in rapidly escalating phase; surgery restricted to patients likely to have survivorship compromised if surgery not performed within the next few days.

Phase III: Hospital resources are all routed to COVID-19 patients, no ventilator or ICU capacity, OR supplies exhausted; surgery restricted to patients likely to have survivorship compromised if surgery not performed within the next few hours.

By these criteria, most surgeries for NETs can be postponed. These tumors are generally slow-growing, and various medical therapies can reasonably be employed when there is a need to delay surgical management. Situations which are considered more urgent and therefore could be considered in Phase I or occasionally in Phase II scenarios might include:

- Symptomatic small bowel NETs (e.g., obstruction, bleeding/hemorrhage, significant pain, concern for ischemia; perforation would require surgery even in Phase III).
- Symptomatic and/or functional pancreatic NETs that cannot be controlled medically; symptoms due to local tumor extension such as bile/pancreatic duct or gastroduodenal obstruction and bleeding could also be considered if failing non-operative management.
- Non-functional pancreatic NETs causing symptoms (jaundice, bleeding, obstruction) after failure of somatostatin analogs and medical therapy.
- Lesions with significant or rapid growth.

In most situations, other therapies are available, and it may be reasonable to consider alternative treatments up front. For example, one could consider using somatostatin analogs (SSAs), other targeted agents (e.g., everolimus or sunitinib), PRRT, or chemotherapy for well-differentiated neuroendocrine tumors requiring therapy. Chemotherapy or external beam radiation therapy could be used instead of surgery up front for poorly differentiated neuroendocrine carcinomas or high-grade NETs. In other cases, simply delaying surgery may make sense for “elective” procedures (e.g., debulking of low grade NET liver metastases, removing an asymptomatic primary tumor of small bowel, resecting asymptomatic pancreatic NETs, and surgery for asymptomatic gastroduodenal or rectal NETs). Debulking surgeries and removal or ablation of metastatic tumors (metastasectomy) should generally be delayed, but should be considered on an individual basis, especially if tumors are progressing after multiple therapies (SSAs, chemo- or biologic therapy, PRRT) or are causing extreme symptoms despite medical therapy.

The risks of tumor progression with delay in definitive surgery should be weighed against the potential added burden on hospital resources, case complexity, and the risk of exposure of patients to COVID-19. However, therapies that require clinic visits and clinician-patient contact, or that themselves could be immunosuppressive, will also be associated with risks to the patient and this must also be considered when choosing how to treat patients with NETs.

5. Lu177 DOTATATE PRRT: Should PRRT be delayed if not yet started? Should the next treatment plan be postponed if in the middle of the planned PRRT course?

As with other procedures, the risk of exposure to COVID-19 and the burden on the hospital system should be taken into account when considering initiating or continuing with PRRT. In patients without evidence of progression, or slow progression prior to treatment, lower tumor burden, non-functional disease, and older patients or those with more comorbidities, delaying PRRT can be considered. A delay of weeks (or longer in some situations) will not impact patient outcome and is considered safe. However, PRRT should be initiated or continued in patients with difficult to control functional disease, more aggressive disease, higher tumor bulk, those already maximized on SSA or with multiple prior lines of therapy. If on treatment, patient visits for safety evaluation should be converted to telemedicine if possible, and visits to the hospital should be minimized in order to decrease exposure.

6. FOCAL RADIATION: Can/should the initiation of radiation be delayed? Can radiation be interrupted or postponed if already in progress?

The risks of delay in treatment for patients with rapidly progressing, potentially curable tumors (e.g., localized, poorly differentiated neuroendocrine carcinoma) may outweigh the risks of COVID-19 exposure/infection, but patients receiving radiation for symptom control or at low risk of harm due to alteration of schedule for radiation treatment visits, could potentially be safely delayed. Patients should check with their radiation oncologist to determine the most appropriate course of action for their treatment.

7. CHEMOTHERAPY: Should chemotherapy potentially be stopped, delayed, or interrupted?

At this time, there is no direct evidence to support changing or withholding chemotherapy (or immunotherapy) in patients with cancer. Therefore, routinely withholding critical anti-cancer or immunosuppressive therapy is not recommended. The balance of potential harms that may result from delaying or interrupting treatment, versus the potential benefits of possibly preventing or delaying COVID-19 infection is very uncertain. Clinical decisions should be individualized between a patient and their doctor to consider factors such as: the indication for chemotherapy and goals of care; the risk of cancer recurrence if therapy is delayed, modified or interrupted; the number of cycles of therapy already completed; and the patient's tolerance of treatment. Some examples of specific situations are as follows:

- For patients with good disease control, stopping chemotherapy may be an option (e.g., someone who has had several months of capecitabine/temozolomide (cape/tem) for pancreatic NET or someone who has had 4-6 cycles of platinum-based therapy for poorly differentiated neuroendocrine carcinoma (NEC).
- Some patients may be able to switch chemotherapy from intravenous to oral therapies, which would decrease the frequency of clinic visits but would require greater vigilance by the health care team to be sure that patients are taking their medicine correctly.
- If the COVID-19 outbreak affects a particular cancer center, reasonable options may include giving a chemotherapy break for a few weeks, arranging infusion at an unaffected satellite unit, or arranging treatment with another facility that is not affected.
- In some settings, delays or modifying adjuvant treatment for potentially curable poorly differentiated NEC may pose a higher risk of compromised disease control and long-term survival than in others. For example, the risk/benefit assessment for proceeding with chemotherapy in patients with untreated poorly differentiated NEC is different from that for patients with slowly growing well-differentiated NET considering cape/tem.
- In patients on high-risk chemotherapy regimens, prophylactic growth factors and/or prophylactic antibiotics may be of potential value in maintaining the overall health of the patient and may make them less vulnerable to potential COVID-19 complications.

8. EVEROLIMUS AND SUNITINIB: Should everolimus or sunitinib be stopped or interrupted during the COVID outbreak?

No specific guidance is available regarding continuation of everolimus or sunitinib during the COVID-19 outbreak. In general, however, any decisions to postpone, discontinue or modify necessary systemic cancer therapy (including oral agents) should consider the overall goals of treatment, risks of cancer progression if treatment is postponed or interrupted, patient tolerance of treatment and the patient's general medical condition. Each decision requires an individualized risk/benefit assessment between the patient and their provider, for example:

- In an otherwise stable patient on everolimus or sunitinib it may be reasonable to take a break from therapy entirely, or continue therapy while reducing the interval of laboratory testing and/or changing to video visits to limit trips to the office (after discussion with the healthcare provider). Continued use of these agents with reduced clinic visits will require more frequent telephone and video interaction with the health care team to carefully evaluate for potentially serious medication side effects, e.g. pneumonitis.
- Patients starting a new therapy will require careful follow-up, and should discuss the pros and cons of initiating a new therapy now, postponing treatment, or considering other alternatives (e.g., hepatic embolization, increasing dose of somatostatin analog).

9. IMAGING: Should imaging be postponed?

In general, as recommended by the CDC, any clinic visits that can be postponed without risk to the patient should be postponed. In some cases, it will be prudent to proceed with imaging, particularly if the information will impact the treatment plan (e.g., choice or timing of therapy). Some examples of specific situations are noted below:

- *Incidental finding suspicious for NET:* Patients who are suspected clinically of disease at low risk of rapid progression (e.g., small pancreatic NET) may potentially delay follow up imaging.
- *Staging scans at the time of new NET/NEC diagnosis:* In a patient newly diagnosed with cancer, it is reasonable to limit staging procedures only to those that are most necessary to inform development of the initial care plan.
 - For example, if a patient is already known to have advanced disease based on CT or MRI scan, it may make sense to postpone Ga68 dotatate PET imaging unless the information will change management. This same applies if a patient has recently undergone resection of an early stage NET and is without evidence for advanced disease on conventional imaging (CT/MRI).
- *Routine surveillance imaging after complete resection of NET/NEC:* In general, any clinic visits that can be postponed without risk to the patient should be postponed. This likely includes routine surveillance in patients considered to be at relatively low risk of recurrence and those who are asymptomatic during the follow-up period. In situations where existing recommendations provide frequency ranges for interventions (e.g., every 3-6 months) it is reasonable to delay scheduled interventions to the longest recommended frequency duration.
- *Routine follow up imaging (patient on therapy or with known disease in place):* Each decision requires an individualized risk/benefit assessment (e.g., current therapy, grade of tumor, rate of growth, symptoms). In situations where existing recommendations provide frequency ranges for interventions (e.g., every 3-6 months or every 6-12 months) it is reasonable to delay scheduled interventions to the longest recommended frequency duration.

Adapted from [ASCO COVID-19 Patient Care Information](#)

ADDITIONAL INFORMATION FOR PROVIDERS:

COVID-19 Provider & Practice Information

[American Society of Clinical Oncology \(ASCO\)](#)
[National Comprehensive Cancer Network \(NCCN\)](#)
[Joint GI Society Statement](#)
[National Institutes of Health \(NIH\)](#)
[Centers for Disease Control \(CDC\)](#)
[World Health Organization \(WHO\)](#)
[ASTRO Guidelines for Radiation](#)

COVID-19 Imaging, Radiology and Nuclear Medicine Treatment Information

[Society of Nuclear Medicine and Molecular Imaging \(SNMMI\)](#)
[International Atomic Energy Agency \(IAEA\)](#)
[Society for Interventional Radiology](#)

COVID-19 Surgical Guidelines

[American College of Surgeons](#)
[Society for Surgical Oncology \(SSO\)](#)

COVID-19 Patient Care Information

[NorCal CarciNET](#)
[Neuroendocrine Tumor Research Foundation \(NETRF\)](#)
[Cancer.NET](#)
[Ipsen Somatuline Home Injection Program](#)
[Novartis Sandostatin Home Injection Program](#)

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