

COVID-19 pandemic impact on healthcare professionals treating patients with neuroendocrine tumors (NET): An International NET CONNECT survey

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BACKGROUND

COVID-19 pandemic has added a degree of complexity in the management of patients with neuroendocrine tumors (NET). We have little information about the real impact of COVID-19 in current practice.

The aim of this study is to capture if and how COVID-19 is changing the way in which healthcare professionals treat NET patients.

METHODS

The NET CONNECT taskforce designed an online anonymous survey addressing different aspects of NET care (including the role of telemedicine). Survey was sent to nurses and physicians working in ENETS Centers of Excellence (CoE) and other hospitals with high volume of NET between March 24th and July 14th 2021.

RESULTS

48 health professionals (48% female, 35% age 51-60 years, 73% >20 years of experience) from 37 institutions completed the survey. Regions included United Kingdom (38%), Europe (24%) and USA (10%). 79% were ENETS Centers of Excellence. Areas of specialization included: Oncology (25%), endocrinology (23%), specialist nurse (19%), gastroenterology (13%), surgery (10%). 56% of centers treated >500 NET patients per year.

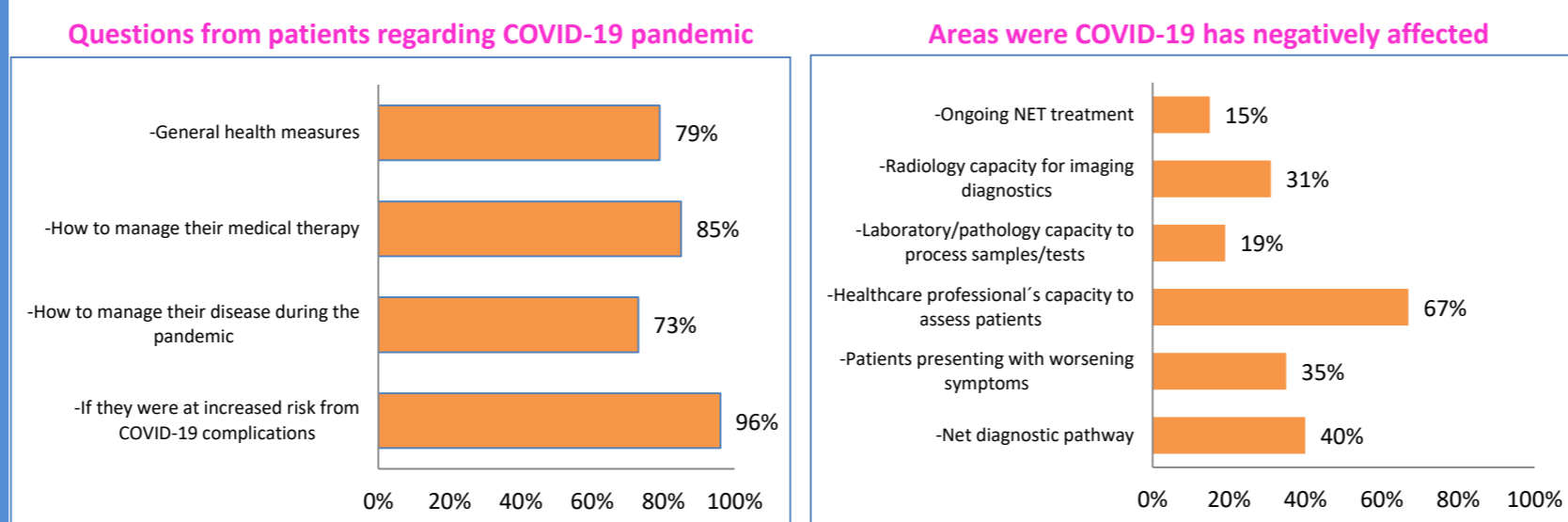
71% of responders worked in areas of high COVID prevalence, 10% tested positive for COVID themselves, and 100% were offered a COVID-19 vaccination in their workplaces.

56% of centers do not know have specific information about the number of NET patients which have tested positive for COVID. Main information source about NET management during COVID pandemic was international professional societies in 73% (including ESMO, NANETS and ENETS). Local country based NET-specific recommendations were available in 38%, but only usually followed in 17% of cases.

According to responders, pandemic affected their relationship with patients (48%). Telemedicine was widely used by 63%, and methods included phone calls (96%), videoconference (44%), telemedicine apps (19%) and email (50%). Tumor boards kept their usual schedule (58%), but were held virtually in 77%. Among the main patient worries perceived by clinicians were the risk of COVID-19-related complications (96%), difficulties in the management of their disease (73%) or oncological medication (85%). NET patients management questions are enlisted in **figure 1**.

Watch and wait strategies were used more commonly (34%), while surgery was often (55%) delayed. Somatostatin analogs (SSA) were increasingly used as bridging strategy for delaying surgery (32%), and were self-injected or delivered by home care service in 35% and 48% of cases respectively. Treatment breaks of targeted therapies (17%), PRRT (13%), or chemotherapy (8%) were also proposed. Patients with advanced NET were considered a priority group for vaccination (93%), but not those with resected NET (19%). NET patients treatment questions are enlisted in **figure 2**.

Fig 1. Impact of COVID-19 in NET patients management



Questions	Agree/Strongly agree
Remote consultation methods	
-Telephone	96%
-Video (Zoom, Skype, etc)	44%
-Telemedicine apps (MDLIVE, Live Health, etc)	19%
-Email	50%
Remote consultation impact	
-Remote consultation has increased my ability to communicate	35%
-Remote consultation has increased my efficiency	48%
-I will continue to use remote methods in post-COVID environment	63%
Multidisciplinary board (MDB) impact	
-MDB meetings were held according to usual schedule and frequency	58%
-Frequency was reduced	4%
-Reduced number of participants	33%
-Occurred virtually	77%

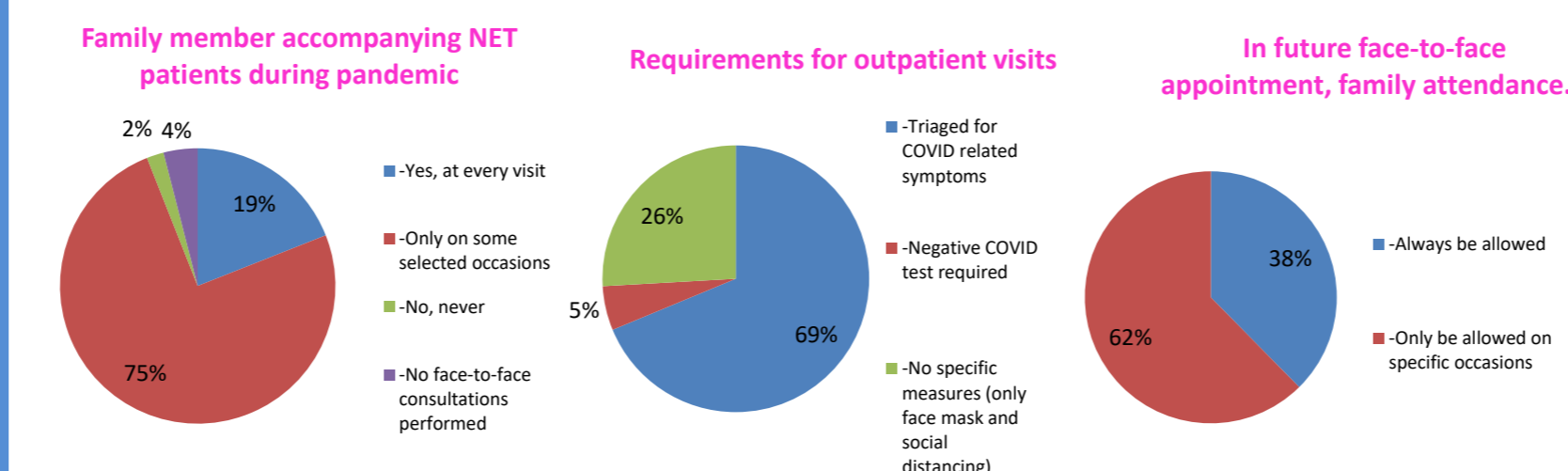


Fig2. Impact of COVID-19 in NET patients treatment

Questions	Agree/Strongly agree
Therapeutic changes during COVID-19 pandemic in patients with SSA	
-Treatment delay/interruption	6%
-Increased interval	0%
-Increased dose or frequency	4%
-Self-injection	35%
-Home injection service	48%
-None of the above	46%
Therapeutic changes during COVID-19 pandemic in patients with other systemic therapies	
-Omitted a cycle or extended interval in PRRT treatments	13%
-Delayed dose of chemotherapy	8%
-Reduced dose or treatment break of everolimus/sunitinib	17%
Surgery changes during COVID-19 pandemic	
-COVID-19 test prior to surgery	94%
-Delayed surgery due to lack of testing provisions	2%
-Delayed surgery due to lack of surgical provisions	40%
COVID-19 vaccination considerations	
-Resected NET patients should be considered a priority group	19%
-Patients with advanced NET should be considered a priority group	93%
-Do you consider changing treatment of a NET patient before vaccination	8%
-Do you consider hanging treatment of a NET patient after vaccination	4%

SSA self-injection strategies

Role of self-injection has become more important during COVID-19 **Agree/Strongly agree** 57%

Plan for patients who have started self-inject during pandemic, to continue with self injection **Agree/Strongly agree** 63%

CONCLUSIONS

- COVID-19 pandemic paved the way towards implementation of telemedicine.
- While systemic treatments were generally continued, surgical interventions were delayed in 55% of patients.
- Regarding SSA, home care service or self-injections have been used more frequently.
- As the pandemic evolves, new data will be needed to design future health policy measures.