

Reviews

# Patient perspectives, from diagnosis through treatments and beyond

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## Abstract

The purpose of this review is to reflect on the current patient experience of Neuroendocrine Cancer (NC) from the prediagnosis stage to identify recommendations that will provide quality care through patient centred decision-making. A review of the latest patient led research around the continued delays in a correct diagnosis, the barriers causing that delay or misdiagnosis, highlights clearly both on a global scale, and UK specific that the faces of the patients may change, but the facts remain the same. In the UK, there is a low suspicion of NC among both the patient and healthcare community at initial presentation of symptoms, with less than 4% of primary care physicians suspecting any form of cancer at all, and if patients were referred on, in less than 17% of secondary care physicians was cancer suspected (Basuroy et al., 2018). Globally, 44% of 2359 patients (1043) were initially misdiagnosed [4]. Challenges continue once diagnosed around access, the prospect of multiple treatments, side effects and longer-term consequences, lifelong tests, hospital appointments and the undeniable reality of living with persistent and pervasive uncertainty. With the prospect of living with an incurable cancer, emotional and quality of life considerations should be of equal importance; *"I am not afraid of dying, but I am afraid of not living"*.

There is also a need to see a truly collaborative approach, across all stakeholders that incorporates and prioritises patient identified care needs and priorities. Patients as partners in care is an absolute requirement for improvements in both experience and outcomes.

## Addresses

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## Introduction

Increased knowledge and understanding with respect to classification, pathogenesis, treatment and research regarding neuroendocrine cancers (NC) has led to many developments and refinements over the last decade. In parallel, we have seen the growth of patient advocacy and real-world data about the lived experience of the patient community. Both have highlighted the significant challenges a newly diagnosed NC patient has to contend with — a sense of being invisible, surrounded by the unfamiliar, especially terminology, diagnostics and treatments, not conforming to the ‘treatment, recovery and survivorship/decline’ model of cancer care, coping with uncertainty and ultimately having to live with cancer. This involves a different way of thinking about cancer to the one most are used to. It means learning to live with cancer as part of everyday life: becoming your own advocate and disease expert.

## Prediagnosis — a potentially tortuous route

*Barriers to Diagnosis* (2020) [1] looked to understand the patient experience of diagnosis and identify patient community recommendations to improve the pathway, as and where appropriate: 880 patients/family members took part in the survey, with partial responses from 197 and completed surveys totalling 683. For many, the initial and challenging route to diagnosis set the scene for a journey of miscommunication, poor coordination, limited knowledge, and in some cases, inappropriate care.

*"I sought medical advice periodically, but always inconclusively, on and off, for at least 10 years - perhaps much longer"*.

*"GP dismissed my bowel problems of needing the toilet almost immediately after main meals as the same as himself. Not abnormal so don't worry!"*

*"It took 2 years to diagnose me, I was called a waste of tax payers' money and a hypochondriac beforehand"*

Alongside the survey undertaken by Basuroy et al. [2], *Barriers to Diagnosis* identified three key issues: A diagnosis being given without investigations to confirm or disprove it — ‘labelling’, an absent differential diagnosis consideration, and a low suspicion of possible malignancy — among both patients and healthcare professionals.

Among patients, few with non-specific symptoms suspected cancer (49/598), fewer still suspected NC. This low suspicion was reflected by healthcare professionals, less than 4% of primary care physicians suspecting cancer (less than 2% of those suspecting NC) — and less than 17% of secondary care physicians suspecting cancer (1 in 5 of this number suspected NC) [2]. This begs the question of what then drives further investigation and onward referral? Trivialising or normalising a symptom has been identified as a deterrent, alongside not wanting to ‘bother’ the doctor, use of self-care interventions, a fear of investigations — and potential results. Motivations included persistence or severity of symptom, ‘instinct’ (body awareness) and social influence [3]. Through the patient survey [2], we find there was a clear demonstration that reduced health-seeking behaviour was not an issue among NC patients; in fact, 80% of respondents visited their GP on average 11 times (related to the symptoms from NC) and secondary care an average three times, prior to diagnosis. This suggests that lack of appropriate onward referral or appropriate investigations in the primary and secondary care setting contribute to delays in diagnosis rather than healthcare avoidance [2].

*Survey of Challenges in Access to Diagnostics and Treatment for Neuroendocrine Tumor (NET) Patients* (SCAN report) [4] — supports these findings — highlighting that almost half of patients surveyed were initially misdiagnosed (44% [1043/2359]). Incorrect diagnoses included: gastritis (Small Intestinal/SI: 40% [125/315]; Pancreas/P: 8% [43/159]); irritable bowel syndrome (SI: 48% [150/315]; P: 33% [52/159]); and asthma (Lung: 5% [52/82]).

*‘Initially Irritable Bowel Syndrome. The stomach ulcer. Then gallbladder or malabsorption. Always told I was too young to worry about cancer!’*

*‘I was worried I had cancer but each time I was told I did not, I was relieved & took their word for it. After the final blockage, I pushed really hard for answers’*

*‘As the gastroenterologist consultants I saw to monitor my coeliac disease carried out tests (negative results) and downplayed the significance of my symptoms I assumed they were due to coeliac disease. I stuck rigidly as I could to gluten free diet but assumed I made the occasional mistake to account for all my symptoms. I had never heard of NC so did not match my symptoms to possibly having a tumour’*

Only 27% (640/2359) received an NC diagnosis following initial presentation: 26% (606/2359) of these diagnosed incidentally.

The mean time to NC diagnosis for misdiagnosed patients was 5 years, with four out of five (81% [847/1042]) failing to receive their diagnosis within one year. Almost half of patients (46% [1077/2359]) were diagnosed with

stage IV and with more than indolent disease: well-differentiated grade 1 (39% [922/2359]); grade 2 (23% [544/2359]); grade 3 (5% [115/2359]); poorly differentiated (4% [101/2359]); unknown primary (29% [(677/2359)] [4].

## Diagnosis and treatments

Availability and access to specialised NC healthcare (expertise, diagnostics and treatments) is a global challenge; the gap between advanced and evolving economies in terms of treatment availability, support services usage and state healthcare coverage is significant and manifests deep inequality [5,6].

Patient experience does not necessarily become less challenging once a diagnosis is made. There is the prospect of multiple treatments, side effects and longer-term consequences, lifelong tests and hospital appointments.

The SCAN report [4] showed GEP-NET (Gastro-Enteropancreatic Neuroendocrine Tumour) patients identifying biopsy as the most available diagnostic option (80% [1332/1670]), followed by a Computed Tomography scan (CT) (77% [1293/1670]). Over a third reported that more specialised diagnostics, included in expert guidelines, such as Gallium-68 Octreotate PET scan (39% [657/1670]) and chromogranin A (CgA) (39% [654/1670]) were unavailable.

In terms of treatment, while surgery was a widely available option according to this cohort of patients (81% [1350/1670]), and two-thirds (68% [1131/1670]) confirmed the availability of somatostatin analogues, almost half (45% [746/1670]) stated PRRT (peptide receptor radionuclide therapy) was not.

Conventional imaging, such as CT/Magnetic Resonance Imaging (MRI)/ultrasound, was available for ongoing monitoring (82% [1374/1670]); however, only a third of GEP-NET patients were able to access CgA (35% [578/1670]) or <sup>68</sup>Ga-DOTA PET CT (38% [633/1670]).

Compounding factors identified included ‘lack of access to reliable information about NC’ (37% [384/1036]) and ‘lack of experts to provide first or second opinion on your case’ (32% [332/1036]) — which has implications not only for informed consent but also appropriate care decision-making.

Unsurprisingly patient community recommendations to improve NC diagnosis and management were ‘more Health Care Professionals knowledgeable in NCs’ (68% [1063/1571]) and ‘better access to NC experts/specialist centres’ (54% [844/1571]). Nearly half of GEP-NET patients had only one HCP involved in their diagnosis (46% [668/1446]); identified leading di-

agnosticians were gastroenterologists (27% [435/1634]) and, interestingly, primary care providers (20% [334/1634] [4].

### Psychological and emotional well-being considerations

For many cancer patients, especially those in the rare and uncommon cancer communities, mental health issues are an often unaddressed, as repeatedly highlighted (by advocacy organisations) over time [7]. The past 12 months global experience of the COVID19 pandemic has highlighted the absolute importance of mental health and the integral role this plays in overall health and well-being. The Mental Health Foundation (2018) <sup>8</sup>: One in three people with cancer will experience a mental health problem such as depression or anxiety disorders before, during or after treatment. Within the NC community, one in four patients report being told at prediagnosis that their symptoms were psychological in origin [2]. “Many of the drivers of poor mental health reflect issues that are specific to managing a condition that is rare ... sometimes being misdiagnosed with psychiatric illness, when trying to access support for physical symptoms. This can have both physical and mental health implications” [9].

Those “who have previously used psychiatric services being particularly vulnerable and at greater risk of mortality following a cancer diagnosis” [8]. The *Unmet Need Survey* [6] demonstrated that over half of the NC patients and patient leaders said the needs for information on psychological care were not at all met. However, while 76% of advocates believed patients’ psychological care needs were not well met, with 71% feeling that treatment needs for diagnosed mental health conditions were often (44%) or not met at all (27%), patients and HCPs perceived mental health needs to be better addressed, with only 32% in each group of the opinion that psychological care needs were inadequately met, a dissonance perhaps explained by the reasoning that “patients most often contact patient organisations when in distress” [6].

Reflecting on patient-reported experiences, it is has become clear that there is a vital requirement to ensure that the future for NC care improvements includes the development of well-defined diagnostic and care pathways and investment in resource capability, awareness and education to ensure efficacy in access to both appropriate diagnostics and treatments. Centres of expertise are vital — in the UK, it is acknowledged that “better outcomes will be achieved by concentrating complex diagnostic (*and therapeutic*) expertise and facilities for patients with rarer cancers” (NHS England Improving Outcomes — Specialised Cancer Services [10]). “Better access to experts/

specialist centres” is a recommendation echoed by NC patients and healthcare professionals around the world. A positive finding in the NCUK *Barriers to Diagnosis survey* [1] was that 76.9% (662 respondents) reported being under the care of a specialist NC service, despite the lack of specialist NC service commissioning.

All cancer patients deserve to have access to a disease-specific specialist for their particular cancer, not only for ‘active’ care and treatments but also information, advance care planning and appropriate psychosocial support.

There is also a need to see a truly collaborative approach across all stakeholders that incorporates and prioritises patient identified care needs and priorities. Patients as partners in care is an absolute requirement for improvements in both experience and outcomes.

This includes building and maintaining stronger relationships with patient organisations and advocacy groups where possible. NHS England’s *Five Year Forward View* [11] has acknowledged peer support as being one of the ‘slow burn, high impact’ interventions that should be seen as ‘essential’ to the future of healthcare services, with benefits seen in both physical and psychosocial well-being of participants and cost efficiency. Such groups have evolved to develop strategies that focus on improving awareness and education among all stakeholders, have generated patient evidence that can influence policies for access to optimal diagnostics, treatment and care and the research agenda [12].

Today, NC patient organisations and advocates have an instrumental role as catalysts of change across the healthcare spectrum — especially relevant in a setting of less common and not well-understood diseases, where comprehensive, holistic care pathways are still needed.

### Conclusions

Cancer brings uncertainty, but this can be greater in a rare cancer setting, where less information is available, awareness, knowledge and expertise is limited, and the type of cancer itself is complex, unpredictable and currently, often incurable.

*Unanswered questions = Uncertainty, and we all know how excruciating it is to live with uncertainty, especially when it’s about that most fundamental of issues, our state of health.*

As discussed, there are existing factors that compound these difficulties, such as lack of clear pathways and access to expertise and appropriate diagnostics and treatments. Implicit in all of this is the cost-saving earlier diagnosis and more disease appropriate utilisation of healthcare resources [9,10].

Health care systems across the globe need to address, not just discuss, these issues to significantly and positively impact both patient experience and outcomes.

*“For me, what’s important and what I can speak about, that others might not be as able to, is the value of helping people accept their changed health status, about how the medical model isolated me and others, and how a small slow cancer might not mean much to them but to me - after three years of increasingly difficult symptoms no one cared about — it’s a very big deal indeed.*

*Seeing me as a person means being expert enough to be adaptable and responsive, and to involve me in my care, its treatment, and diagnosis.*

*We need practitioners who not only hold excellent clinical skills, but human skills as well”. Bethann.*

## Conflict of interest statement

Nothing declared.

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## References

1. Bouvier, *et al.*: *Barriers to diagnosis*. NCUK; 2021.
2. Basuroy R, Bouvier C, Ramage JK, *et al.*: **Delays and routes to diagnosis of neuroendocrine tumours**. *BMC Canc* 2018, **18**: 1122, <https://doi.org/10.1186/s12885-018-5057-3>.
3. Bouvier CV, Van Genechten D, Kolarova T, McDonnell M, O’Toole D, Singh H, Chen J, Howe J, Singh S, Rodien-Louw C, Leyden S, Dureja S: **Survey of challenges in access to diagnostics and treatment for neuroendocrine tumour (NET) patients (SCAN): healthcare quality evaluation**. *Ann Oncol* 2020, **31**(suppl 4):S776.
4. Singh Simron, Granberg Dan, Wolin Edward, Warner Richard, Sissons Maia, Kolarova Teodora, Goldstein Grace, Pavel Marianne, O’berg Kjell, Leyden John: **Patient-reported burden of a neuroendocrine tumor (NET) diagnosis: results from the first global survey of patients with NETs**. *Int J Glob Oncol* 2017, **3**:43–53.
5. Leyden S, Kolarova T, Bouvier C, Caplin M, Conroy S, Davies P, Dureja S, Falconi M, Ferolla P, Fisher G, Goldstein G, Hicks RJ, Lawrence B, Majima Y, Metz DC, O’Toole D, Ruzsniwski P, Wiedenmann B, Hollander R: **International Neuroendocrine Cancer Alliance (INCA). Unmet needs in the international neuroendocrine tumor (NET) community: assessment of major gaps from the perspective of patients, patient advocates and NET health care professionals**. *Int J Canc* 2020, **146**:1316–1323.
6. Whitaker Katrina L, Macleod Una, Kelly Winstanley, Suzanne E Scott, Wardle Jane: **Help seeking for cancer ‘alarm’ symptoms: a qualitative interview study of primary care patients in the UK**. *Br J Gen Pract* 2015, **65**.
7. *The rare disease UK report: living with a rare condition: the effect on mental health*. 2018. <https://www.raredisease.org.uk/news-event/uk-strategy-for-rare-diseases-progress-report-2018-our-response/>.
8. Niedzwiedz CL, Knifton L, Robb KA, *et al.*: **Depression and anxiety among people living with and beyond cancer: a growing clinical and research priority**. *BMC Canc* 2019, **19**: 943, <https://doi.org/10.1186/s12885-019-6181-4>.
9. Mental Health Foundation (Scotland): *Supporting the emotional and mental health needs of people with cancer*. 2018. <https://www.mentalhealth.org.uk/sites/default/files/mh-needs-people-with-cancer.pdf>.
10. NHS England improving outcomes specialised cancer services <https://www.england.nhs.uk/cancer/>.
11. NHS England: Five year forward view <https://www.england.nhs.uk/five-year-forward-view/>.
12. Cancer 52 an alliance of nearly 100 organisations working to address this inequality and improve outcomes for patients with rare and less common cancers - <https://www.cancer52.org.uk/>.