Differential Diagnosis (DDx) of Diarrhea in Neuroendocrine Tumor (NET) Patients

Objective

• To describe a novel adaptation of framework synthesis (FS), which was used to facilitate the synthesis of qualitative and quantitative evidence relating to the differential diagnosis (DDx) of diarrhea in patients with gastroenteropancreatic neuroendocrine tumors (GEP-NETs).

Background

• FS is a method for synthesis of qualitative research. It can also be used to integrate qualitative and quantitative data to explore complex healthcare issues. We used FS to explore evidence identified via systematic literature review (SLR) relating to DDx of diarrhea in patients with GEP-NETs, for which little quantitative data are available.

Methods

• A summary of the review methodology is presented in Figure 1. A preliminary framework of themes associated with differential diagnosis of NET diarrhea was developed to inform the methodology of the SLR and facilitate data extraction and synthesis, which was performed in Docear (Figure 2).

The final evidence framework is presented in Table 1.

Results

• Data from 47 articles (44 unique studies) were included in the final framework. Information supporting all predefined themes was identified from observational studies, case reports, guidelines and narrative reviews. Three novel themes emerged (Table 1), and data were often indexed to more than one theme.

• Quantitative data were primarily obtained from observational studies, while the majority of qualitative data relevant to the ‘inferring’ and ‘confirming the cause of diarrhea’ themes were extracted from reviews, guidelines, case reports, and the discussion section of articles reporting on observational studies (Figure 3).

• A total of 4,654 words were extracted from the 47 included articles, although in some articles only one sentence of text was relevant, demonstrating the sparsity of the evidence base (Figure 3).

• As most data were qualitative and sourced from discussion sections, findings may be subject to author opinion and lack supporting evidence.

• However, these themes provided valuable insight on the importance of DDx of NET diarrhea and allowed for the development of a theoretical chronological framework including approaches for DDx of NET diarrhea, highlighting diagnostic methods to further investigate in use in clinical practice.

References


Acknowledgements

The authors thank Lisa Yang, Costello Medical, London for graphic design assistance with the development of this poster.