

# To Treat or Watch? Identifying Drivers of Decisions for Patients with GEP-NET Using Reflective Multi-Criteria Decision Analysis

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**Background:** GEP-NET are slow-growing tumors with heterogeneous presentation. Somatostatin analogs (SSAs) or watchful-waiting are recommended for management of unresectable, well- or moderately-differentiated non-functioning GEP-NET. This study aimed to develop a comprehensive shared-decision making MCDA-framework, and explore drivers of decision.

**Methods:** A decision support tool was designed using a holistic MCDA-framework (EVIDEM), literature review and insights from a Chatham-house panel of US physicians and patients with GEP-NET. A second extended panel (5 patients, 6 physicians) explored drivers of decision using two scenarios (SSA [reference case lanreotide] versus observation; lanreotide versus octreotide). Evidence was synthesized from a comprehensive literature review. Participants assigned weights through two techniques. For each criterion, participants were prompted to share experiential insights and knowledge, and assign a score (+5 [Much in favor of option 1] to -5 [Much in favor of option 2]). Value contributions (NormWeightXScore) were calculated for each criterion. Sensitivity analyses were performed.

**Results:** At group level, when exploring treatment over watchful-waiting, Type of therapeutic benefit, Disease severity, Effectiveness (mainly due to Progression-free survival and Disease symptom) and Quality of evidence favored treatment (mean value contribution:  $0.08 \pm 0.06$ ,  $0.07 \pm 0.09$ ,  $0.07 \pm 0.09$  and  $0.06 \pm 0.06$  respectively) whereas Costs aspects (interventions, medical and non-medical) favored watchful-waiting. When comparing two treatment options, the majority of criteria did not favor one option over another. System capacity ( $0.02 \pm 0.02$ ) and Non-medical costs and constraints ( $0.02 \pm 0.03$ ) tip the scale in favor of lanreotide and Cost of intervention in favor of octreotide ( $0.08 \pm 0.12$ ). Sub-criteria Impact on autonomy and Impact on dignity favored lanreotide. Wide SDs reflect variability of drivers of decision across participants.

**Conclusion:** Exploration of scenarios identified drivers of decision for GEP-NET management and revealed the diversity of participants perspectives. Holistic MCDA embedded with evidence supports individual reflection and informed shared-decision making.