USING THE MODIFIED RAND/UCLA DELPHI PROCESS TO PRODUCE MEDICAL TREATMENT CONSENSUS IN UNRESECTABLE MIDGUT GASTROINTESTINAL NEUROENDOCRINE TUMORS

Strosberg JR,1 Fisher G,2 Benson AB,3 Mallin JL,4 Anthony L,5 Arslan B,5 Gibbs JF,6 Greene EJ,6 Iyer R,7 Kim MK,8 Maples WJ,9 Philip PA,10 Vindelov L11 Cheraspeon D,12 Broder MS4

1 Lee Moffitt Cancer Center and Research Institutes, 2 Stanford University Medical Center, 3 Robert H. Lurie Comprehensive Cancer Center of Northwestern University, 4 University of California, Los Angeles, 5 University of Kentucky, 6 Rush University Medical Center, 7 University of New York at Buffalo, 8 University of Minnesota, 9 Rosewell Park Cancer Institute, 10 Mount Sinai Medical Center, 11 Mission Health System, 12 Karmanos Cancer Institute, 13 Cedars-Sinai Medical Center, 14 Partnership for Health Analytic Research.

BACKGROUND

• Gastrointestinal neuroendocrine tumors (NETs) are rare neoplasms that originate from the secretory cells of the neuroendocrine system and produce peptides and neuroamines causing characteristic hormonal phenomena, including carcinoid syndrome.2,14
• The emergence of new therapies has improved the options available to patients, although current treatment guidelines lack specificity in some clinical scenarios.2,14
• A systematic methodology for group decision-making, such as the RAND/UCLA modified Delphi process,15 has not previously been used to develop medical management recommendations for midgut NETs.16

OBJECTIVE

• To use the RAND/UCLA modified Delphi process to develop a consensus on medical treatment of well-differentiated (grade 1-2 tumors) unresectable midgut NETs.

METHODS

The modified RAND/UCLA Delphi process involved recruitment of expert physicians, development of patient scenarios, collection of ratings, statistical summary of panel agreement, and development of consensus statements.17

Physician Experts

• Thirty-one physician experts in treatment of NETs, representing various specialties, were appointed to serve on the study steering committee, on the panel, or both; the physician was assigned the moderator role.2
• Experts and the moderator were blinded to the funding source.

Development of Clinical Patient Scenarios

• Following the experts’ review of a summary of published evidence on NETs, we collaborated to develop a comprehensive list of key variables used to construct patient scenarios.

NOTE: The Delphi panel process does not develop new information; it is a systematic methodology for group decision-making for the management of a rare condition.18

This detailed consensus statement can inform the development of treatment guidelines and may also guide clinicians in their clinical decision-making for patients with midgut NETs.4

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RESULTS

• The 10 variables (age: 36-83 years) were from northeast, midwest, and west regions.
• Specific variables included histology, intratumoral and surgical oncology, interventional radiology, and gastroenterology.
• Pancreatic NETs are prevalent in 15.5 years and reported seeing 25,800 NET patients per year.
• All analysis were performed using SAS® version 9.2 (SAS Institute, Cary, NC).

Development of Consensus Statements

• Treatment of consensus statements were drafted based on statistical summary of panel agreement in the 2nd round.

Table 1. Variables Used to Construct Clinical Patient Scenarios in NETs

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range of Values</th>
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<tbody>
<tr>
<td>Level of treatment</td>
<td>0, 1, 2, 3</td>
</tr>
<tr>
<td>Patient’s primary problem</td>
<td>0, 1, 2, 3</td>
</tr>
<tr>
<td>Postoperative and metastatic stage</td>
<td>0, 1, 2, 3</td>
</tr>
<tr>
<td>Frequency of imaging</td>
<td>0, 1, 2, 3</td>
</tr>
<tr>
<td>Markers and scores</td>
<td>0, 1, 2, 3</td>
</tr>
<tr>
<td>Somatostatin analog treatment</td>
<td>0, 1, 2, 3, 4, 5</td>
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<tr>
<td>Flutamide</td>
<td>0, 1, 2, 3, 4, 5</td>
</tr>
<tr>
<td>Sunitinib</td>
<td>0, 1, 2, 3, 4, 5</td>
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<tr>
<td>Clinical trial</td>
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<tr>
<td>First-line therapy</td>
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<tr>
<td>Second-line therapy</td>
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</tr>
<tr>
<td>Third-line therapy</td>
<td>0, 1, 2, 3, 4, 5</td>
</tr>
</tbody>
</table>

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CONCLUSIONS

Medical treatment consensus obtained in this study is concordant with NCCN recommendations.3

- The consensual statements produced in this study are useful in informing and backfilling existing guidelines because they address specific scenarios not covered in other guidelines.4

- In this study, we show how an expert panel methodology, namely the RAND/UCLA modified Delphi process, can be used to systematically derive consensus statements for the management of a rare condition.

This detailed consensus statement can inform the development of treatment guidelines and may also guide clinicians in their clinical decision-making for patients with midgut NETs.4

LIMITATIONS

• The panelists relied on information from a variety of data sources, not just from randomized controlled trials.
• Although the Delphi panel method has been reproduced to be an ad hoc panel review of available settings, and a different panel composition may have derived slightly different consensus statements.

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