# RECIST for the real world: Impact of Response Evaluation Criteria in Solid Tumors compared to standard radiology reports on physician decisions and patient satisfaction

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## Background

- **Neuroendocrine tumors (NETs) are slow growing and radiologic assessment of tumor progression using standard evaluation is challenging.**
- **RECIST1.1 is used to assess the response to treatment in solid oncology clinical trials.**
- **This study aims to assess the impact of RECIST 1.1 in a standard of care setting and compare its use to routine radiology reports on physician decision making and patient satisfaction**

## Methods

- **50 patients from the Stanford NET clinic were identified (Table 1)**
- **We retrospectively used Stanford's Tumor Response Assessment Criteria (TRAC) and mintLesion™, to apply RECIST 1.1 criteria to CTs or MRIs performed as SOC.**
- **20 physicians reviewed 5 de-identified patient cases to assess the impact of TRAC compared to standard radiology reports on physician decision-making, .**
- **Physicians received standard radiology and TRAC reports and answered same survey questions regarding disease response respectively.**
- **The survey evaluated their interpretation of both the standard radiology report and TRAC report, if TRAC report would prompt changes in treatment, and measured their confidence in their decisions comparing rates and reasons for treatment change.**
- **To assess pt satisfaction and understanding of their standard radiology report compared to TRAC report, pts were asked to complete 2 surveys, after they receiving their standard radiology and TRAC report respectively.**

## Patient Demographic, Physician and Patient Responses

**Table 1: Patient Demographics**

| Characteristic | N = 50 |
|---|---|
| Sex, n (%) | |
| Female | 28 (56%) |
| Male | 22 (44%) |
| Race, n (%) | |
| White | 40 (80%) |
| Asian | 7 (14%) |
| Native Hawaiian or Other Pacific Islander | 1 (2.0%) |
| Other | 2 (4.0%) |
| Ethnicity, n (%) | |
| Hispanic/Latino | 2 (4.0%) |
| Non-Hispanic | 48 (96%) |

**Figure 2:**

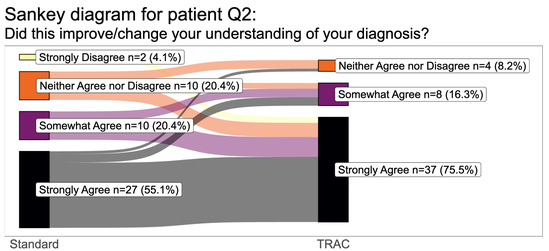
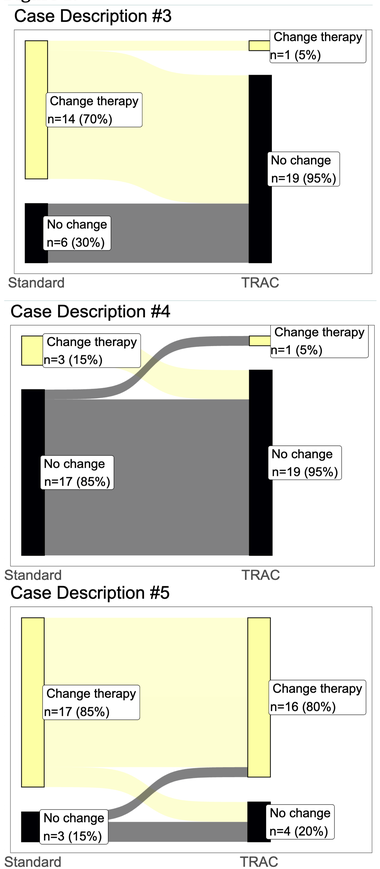



**Figure 1:**




## Results

- **Physician responses were analyzed using Kendall's W to assess agreement in survey responses after separately reviewing standard and TRAC reports.**
- **Across all cases we found that the overall agreement of responses to interpretation after reviewing the standard report (0.77) and TRAC report (0.81) were similar.**
- **Although physicians agreed within each method, their responses differed between standard and TRAC reports. Agreement on treatment changes was higher after reviewing TRAC report (0.70) than standard report (0.55)(Fig.1).**
- **Patient surveys were analyzed using Wilcoxon signed rank test. Pts reported significantly improved understanding of their diagnosis ($p = 0.011$), felt more comfortable ($p < 0.001$), and were very satisfied with the way their imaging was explained with TRAC vs standard radiology report ($p < 0.001$) (Fig.2).**

## Conclusion

- **Our study underscores the variability in physician interpretation of standard radiology reports and impact on treatment decisions in NETs.**
- **The results also highlight several positive aspects of patient experience with TRAC compared to standard approach and suggests the benefits of using standardized response assessment for imaging in routine clinical practice.**

## References

1) Eisenhauer et al, New response evaluation criteria in solid tumours: revised RECIST guideline (version 1.1), Eur J Cancer 2009 Jan;45(2):228-47.doi: 10.1016/j.ejca.2008.10.026

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