

Developing a data-driven framework to assess the performance and value of multi-disciplinary teams in HCC

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1 Introduction

- Regular meetings of multi-disciplinary teams (MDTs) constitute a key point of care in the patient pathway in hepatocellular cancer (HCC)
- MDTs have been shown to increase the efficiency in health care by increasing number patients treated, improving diagnosis, and positively impacting survival¹⁻⁶
- The collaboration between different HCPs is increasing in importance as the therapeutic landscape evolves towards treatment tailoring and personalization, however there is a lack of methodology for assessing the MDT value and enable improvement
- The way MDTs are organized varies across countries, hospitals and therapeutic areas, which may lead to sub-optimal outcomes

2 Aim

- To develop a framework to assess MDT performance tailored to HCC
- To further enhance the framework by defining standardized qualitative and quantitative metrics for hospitals to assess their maturity and demonstrate the value of MDTs. There is limited evidence supporting that the implementation of MDTs has been shown to increase efficiency and efficacy in healthcare.

3 Method

- We conducted 80 semi-structured interviews with key members of MDTs treating HCC in 14 leading hospitals across Europe and Canada to analyse: MDT process, capabilities, governance, communication channels, MDT impact on treatment decision-making and on patient outcomes
- The framework was then pressure tested and refined with 14 HCC MDT working groups

4 Results

A pressure-tested HCC framework has been developed to analyse and assess HCC MDTs in a data-driven manner. The framework characterizes MDTs across three core elements: MDT process and MDT status quo, impact on patient pathway and impact on outcomes. It includes 13 quantitative and 8 qualitative metrics, ranging from time to diagnosis and treatment to roles and responsibilities, that can be gathered in a reproducible manner.

FIGURE 1: KEY CATEGORIES AND RATIONALE USED TO DEVELOP THE HCC FRAMEWORK

CATEGORIES	RATIONALE
MDT status quo	<ul style="list-style-type: none"> Develop an HCC MDT maturity model based on existing previous efforts¹ Enable institution of MDT self-assessment and continuous improvement
Impact on the patient pathway	<ul style="list-style-type: none"> Quantify the scale of impact of MDTs Evaluate existing variability in critical parameters within the patient pathway Identify relationships between MDT ways of working and resulting impact
Impact on the outcomes	<ul style="list-style-type: none"> Demonstrate the value of MDTs in enabling optimised treatment for patients Generate further evidence to recognise MDT impact on patient outcomes

FIGURE 2: THE HCC FRAMEWORK CAN BE DIVIDED INTO SUB-CATEGORIES AND METRICS THAT HAVE BEEN DEFINED TO COLLECTIVELY ASSESS MATURITY AND IMPACT.

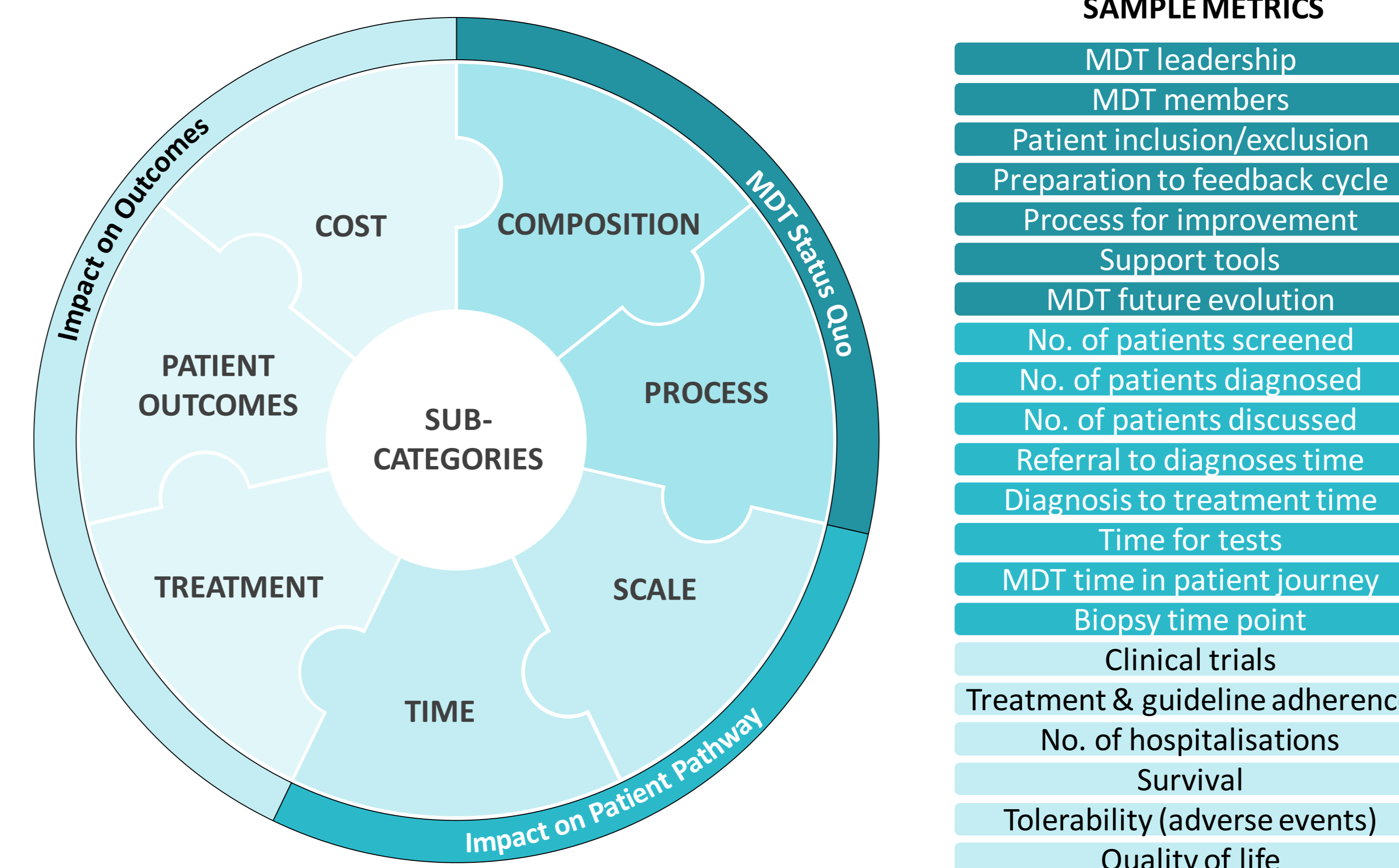
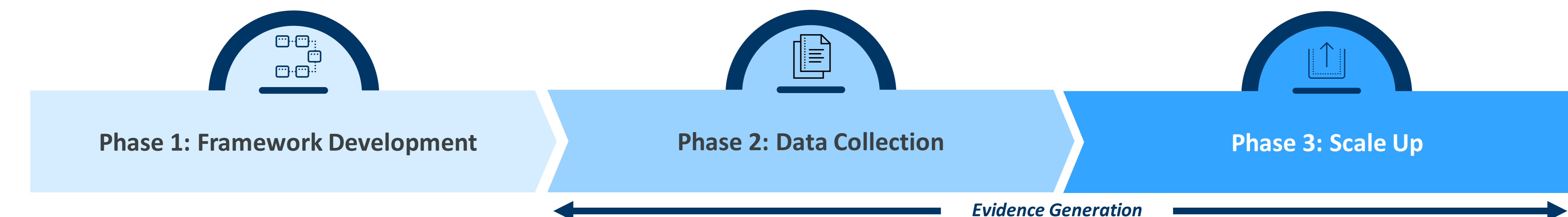


FIGURE 3: THREE-PHASE APPROACH TO THE INITIATIVE.



5 Conclusion

- The developed framework can be used by hospitals to self-assess their MDT maturity specifically for HCC and demonstrate the value of MDTs through impact measurement, especially as we move towards the era of personalized medicine.
- This impact is described across the different stakeholders involved (MDT operations, HCP decision-making, Patient outcomes, and Healthcare cost) and can be employed to seek improvements in efficiency and effectiveness of overall patient care.
- As MDTs become critical for the patient care in HCC, this work is a first step to establish a standard of MDT value assessment and ways of working to support adoption and continuous improvement across hospitals.
- The ongoing validation and refinement phase will further tailor the framework to understand how upcoming innovations can be integrated into MDT decision-making processes for more optimal HCC treatment and outcomes.

6 Acknowledgements

This content was drafted in close collaboration with the hospitals that were part of the MDT Aid Program in HCC EUCAN. A program sponsored by AstraZeneca

7 References

- El Dahan, KS et al., Multidisciplinary care for patients with HCC: a systematic review and meta-analysis, Hepatology Communications. 2023;7:e0143
- Basta YL et al. Is there a Benefit of Multidisciplinary Cancer Team Meetings for Patients with Gastrointestinal Malignancies? Ann Surg Oncol. 2016 Aug;23(8):2430-7
- MacDermid E et al. Improving patient survival with the colorectal cancer multi-disciplinary team. Colorectal Dis. 2009;11(3):291-295
- Basta YL, et al. The Value of Multidisciplinary Team Meetings for Patients with Gastrointestinal Malignancies: A Systematic Review. Ann Surg Oncol. 2017
- Diaz CR et al. Tu1492—The barriers to implementation of Multidisciplinary Tumor Board Recommendations and their impact on hepatocellular carcinoma survival. Gastroenterology. 2018;154:S-1237
- Schellenberger B. et al. Decision-Making in Multidisciplinary Tumor Boards in Breast Cancer Care - An Observational Study. J Multidiscip Healthc. 2021 Jun 1:14:1275-1284

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