Cancer-Related HTA Outcomes by European HTA Agencies:
A Comparative Analysis of G-BA, HAS and NICE

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Introduction & Objectives

European health technology assessment (HTA) agencies have implemented different evaluation approaches, which may lead to variation in HTA outcomes.

Despite existing differences in key decision criteria, the German Federal Joint Committee (Gemeinsamer Bundesausschuss, G-BA), the French Haute Autorité de Santé (HAS) as well as the British National Institute for Health and Care Excellence (NICE) are broadly considered as HTA agencies following high methodological standards and transparent assessment procedures.
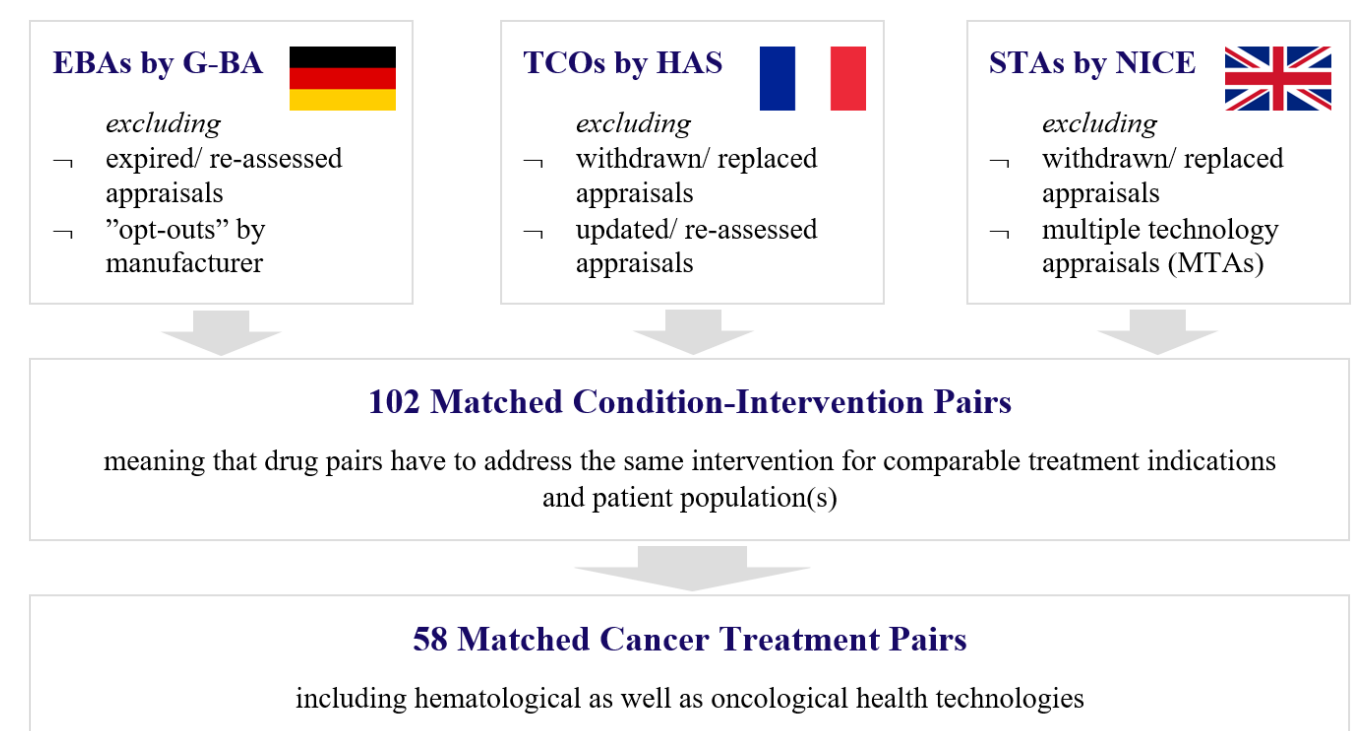
Against this background, the **aim of our study** was to explore the potential association between different HTA methods and heterogeneous HTA outcomes, focusing on new cancer treatments.

Data & Methods

HTA reports and related documents were obtained from official HTA agency websites (G-BA, https://www.g-ba.de/; HAS, https://www.has-sante.fr/; NICE, https://www.nice.org.uk/).

We extracted data from all publicly available G-BA appraisals between January 2011 – when early benefit assessments (EBAs) were officially implemented in Germany – and June 2018, as well as all published HAS transparency committee opinions (TCOs) and NICE single technology appraisals (STAs) during the same period. For the comparative study sample, we included **matched condition-intervention pairs** only.

First we compared health benefit assessment results of matched condition-intervention pairs by G-BA, HAS and NICE. We then explored the role of additional attributes with regard to cancer treatments, such as the orphan drug status in Germany, as well as end of life (EoL) criteria and Cancer Drugs Fund (CDF) reconsiderations in England.

EBAs by G-BA
excluding
¬ expired/ re-assessed appraisals
¬ "opt-outs" by manufacturer

TCOs by HAS
excluding
¬ withdrawn/ replaced appraisals
¬ updated/ re-assessed appraisals

STAs by NICE
excluding
¬ withdrawn/ replaced appraisals
¬ multiple technology appraisals (MTAs)

102 Matched Condition-Intervention Pairs
meaning that drug pairs have to address the same intervention for comparable treatment indications and patient population(s)

58 Matched Cancer Treatment Pairs
including hematological as well as oncological health technologies

Results & Key Findings

Matched Condition-Intervention Pairs

During the study period, we found **102 matched condition-intervention pairs**; of which, nearly two-thirds (64/102) differ by assessment outcome.

NICE recommended 85/102 (83%) of the drugs, whereas HAS and G-BA reported added benefit for 60/102 (59%, considering 6 non-reimbursable drugs) and 72/102 (71%, including 15 drugs with an orphan designation) treatments, respectively.

HTAs by Outcome [Total]

COMPARABLE results by G-BA, HAS and NICE
37% (38/102)

DEVIATING results by G-BA, HAS and NICE
63% (64/102)

[Only cancer-related HTA outcomes show similar findings.]

Positive HTA Outcomes by Agency [Total / Cancer]

Total: 71% (72/102), 59% (60/102), 83% (85/102)
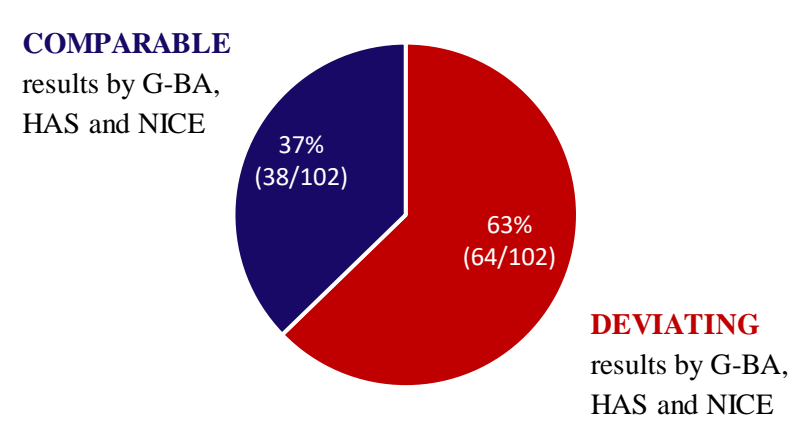Cancer: 84% (49/58), 64% (37/58), 72% (42/58)

Matched Cancer Treatment Pairs

Findings for **58/102 matched cancer treatment pairs** reveal, however, substantial differences in assessment outcomes.

While NICE recommended 42/58 (72%, including 37 EoL considerations) cancer technologies (another 11 drugs were recommended for use within the CDF only), HAS and G-BA reported 37/58 (64%, considering 5/58 non-reimbursable drugs) and 49/58 (84%, including 12 drugs with an orphan designation) treatments with additional benefit, respectively.
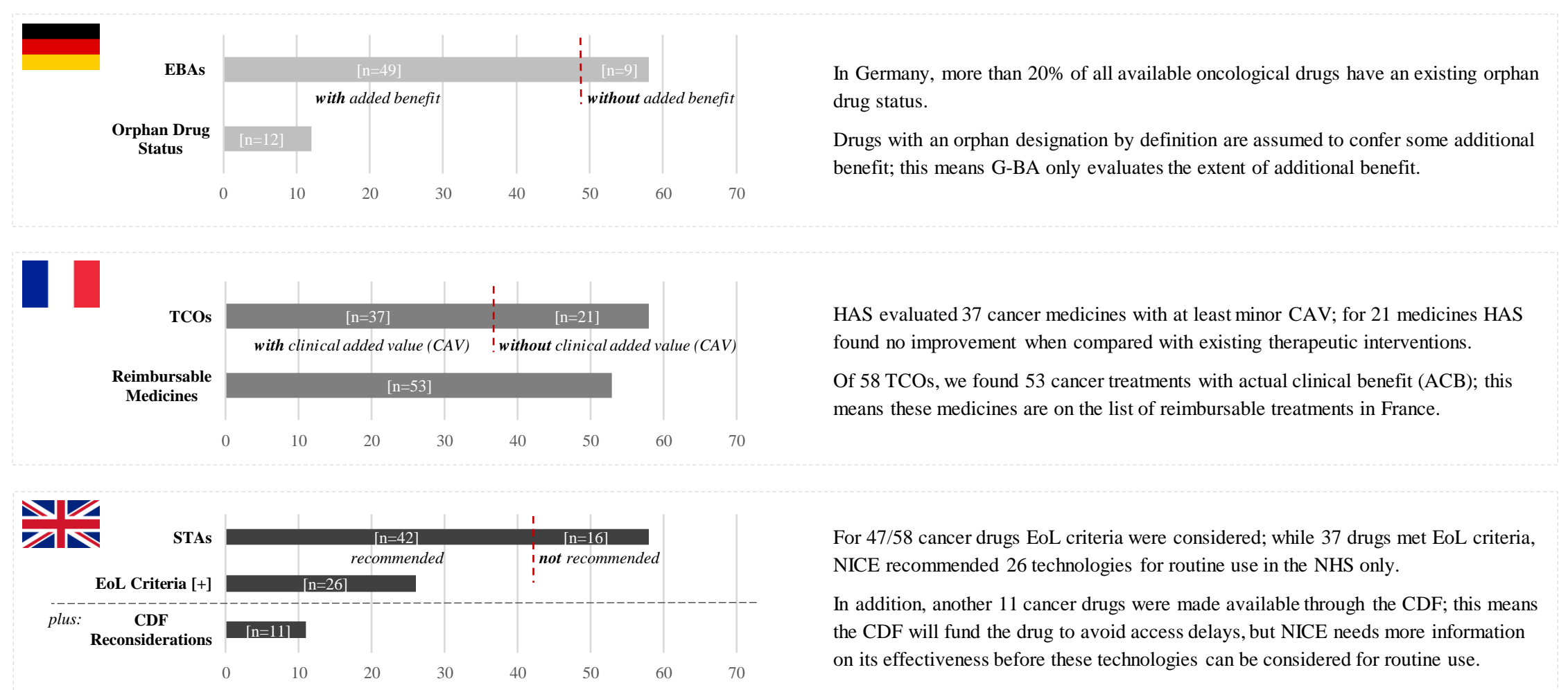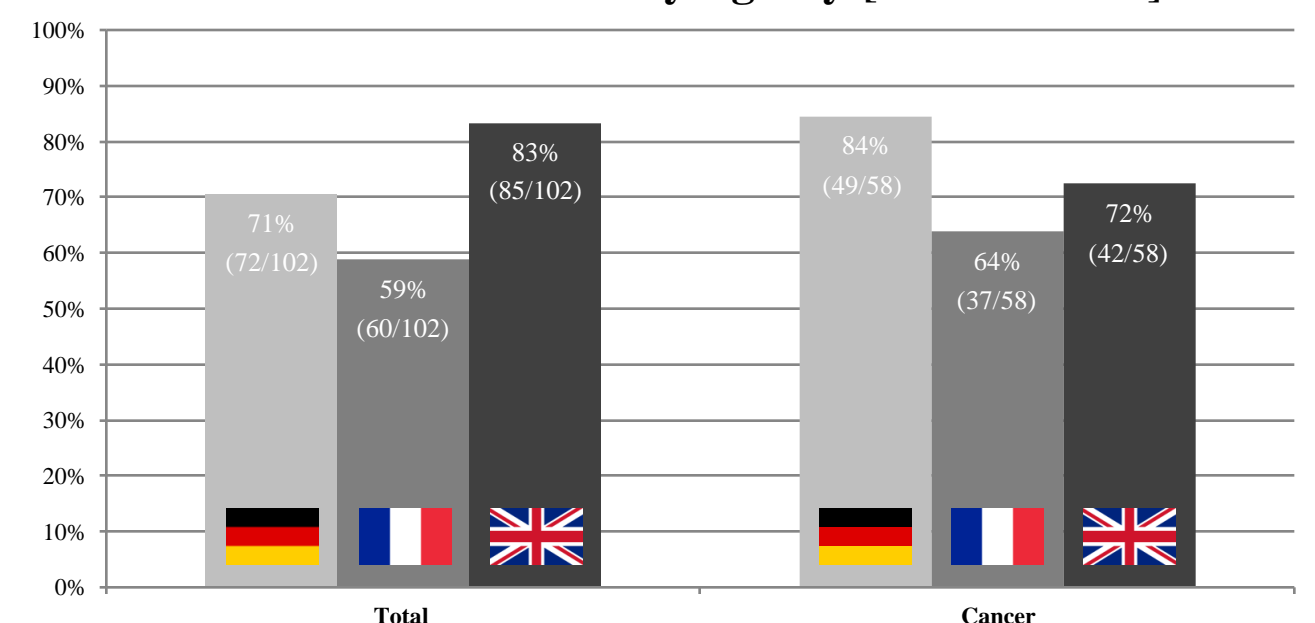
Notwithstanding that more than half (33/58) of the cancer-related HTA outcomes differ, discrepancies by therapeutic area apparently exist.

EBAs [n=49] with added benefit | [n=9] without added benefit
Orphan Drug Status [n=12]

In Germany, more than 20% of all available oncological drugs have an existing orphan drug status.

Drugs with an orphan designation by definition are assumed to confer some additional benefit; this means G-BA only evaluates the extent of additional benefit.

TCOs [n=37] with clinical added value (CAV) | [n=21] without clinical added value (CAV)
Reimbursable Medicines [n=53]

HAS evaluated 37 cancer medicines with at least minor CAV; for 21 medicines HAS found no improvement when compared with existing therapeutic interventions.

Of 58 TCOs, we found 53 cancer treatments with actual clinical benefit (ACB); this means these medicines are on the list of reimbursable treatments in France.

STAs [n=42] recommended | [n=16] not recommended
EoL Criteria [+] [n=26]
plus: **CDF Reconsiderations** [n=11]

For 47/58 cancer drugs EoL criteria were considered; while 37 drugs met EoL criteria, NICE recommended 26 technologies for routine use in the NHS only.

In addition, another 11 cancer drugs were made available through the CDF; this means the CDF will fund the drug to avoid access delays, but NICE needs more information on its effectiveness before these technologies can be considered for routine use.

Summary & Conclusions

Our analysis of matched condition-intervention pairs indicates that NICE tends to evaluate new drugs relatively more favorably than G-BA and HAS. However, **cancer-related HTAs are evaluated more favorably by G-BA compared to HAS and NICE**.

Overall, our results confirm that **different methodological choices are indeed associated with differences in HTA outcomes**, which may be amplified – in particular with regard to cancer drugs – by some well-defined exceptions (e.g. orphan drug status in Germany, end of life considerations in England) in national HTA systems.