

Background

- Health Technology Assessment (HTA) requirements in the Asia-Pacific (APAC) market as compared to HTA in Europe (EU), Canada, and United State (U.S.), sheds light on the HTA environment in the evaluation of drugs and pharmaceuticals across the APAC region and provides an overview for stakeholders to incorporate scarce healthcare resources into their reimbursement policies and decisions.

Objectives

- This study aims to highlight the gaps in HTA requirements and existence of heterogeneity in HTA practices in 10 selected APAC countries in comparison to HTA practices in Europe, Canada, and U.S.

Methodology

- A comparison of good practices in application of HTA for decision-making was carried out through a review of ISPOR's comparative table of pharmacoeconomic guidelines, published- and grey literature.
- A set of 15 principles prepared by the International Working Group were predefined for relative qualitative scoring and a scoring matrix was developed to benchmark the strength of HTA in each country.

Table 1: Description and Scoring system for each principle of the International Working Group for HTA Advancement (Key Principles)

#	Principle	Description of Principle	Scoring
P1	The goal and scope of the HTA should be explicit and relevant to its use	<ul style="list-style-type: none"> PE Guidelines PE recommendation Submission guideline 	PE- Pharmacoeconomic guideline PR- PE Recommendation SG- Submission guideline
P2	HTA should be an unbiased and transparent exercise	<ul style="list-style-type: none"> Presence of independent HTA bodies, Should conduct HTA Separate from Decision maker 	Present Not present NA
P3	HTA should include all relevant technologies	<ul style="list-style-type: none"> Health technologies, such as drugs, devices, diagnostic methods, IT systems, etc. 	Technology 1 Technology NA
P4	A clear system for setting priorities for HTA should exist	<ul style="list-style-type: none"> HTA Implemented or supported 	Implemented Supported NA
P5	HTA should incorporate appropriate methods for assessing costs and benefits.	<ul style="list-style-type: none"> All cost Specific cost (direct cost, indirect cost, depend on the perspective) 	All cost Specific cost NA
P6	HTAs should consider a wide range of evidence and outcomes	<ul style="list-style-type: none"> Main evidence- RCT/ SR/ MM/ RWE Main outcome- QALY and LYQ, HRQoL 	Mandatory Recommended NA
P7	A full societal perspective should be considered when undertaking HTAs.	<ul style="list-style-type: none"> Societal perspective mandatory Societal perspective recommended 	Mandatory Recommended No Perspective NA
P8	HTAs should explicitly characterize uncertainty surrounding estimates.	<ul style="list-style-type: none"> Robustness of analytical method and sensitivity analysis (Probabilistic and Deterministic etc.) 	Conducting Not conducting NA
P9	HTAs should consider and address issues of generalizability and transferability	<ul style="list-style-type: none"> Portability of result 	Supporting Not Supporting NA
P10	Those conducting HTAs should actively engage all key stakeholder groups	<ul style="list-style-type: none"> Involvement of decision makers, payer, providers, or society stakeholder 	>1 Stakeholder 1 Stakeholder NA
P11	Those undertaking HTAs should actively search for all available information and data.	<ul style="list-style-type: none"> Disclosure 	Present Not Present NA
P12	The implementation of HTA results needs to be monitored	<ul style="list-style-type: none"> Implemented and supporting monitoring 	Implemented Not Implemented NA
P13	HTA should be timely	<ul style="list-style-type: none"> Time Horizon 	Present Not Present NA
P14	HTA findings need to be communicated appropriately to different decisions makers	<ul style="list-style-type: none"> Engagement wide audience Effective communication strategies 	Supporting Not Supporting NA
P15	The link between HTA findings and decision-making processes needs to be transparent and clearly defined	<ul style="list-style-type: none"> HTA conducted body different from decision making 	Present Not Present NA

Results

- The findings of this paper reveal that developed markets such as Europe and Canada have deployed HTA over the last three decades to inform health policy and reimbursement decision-making, but the adoption of HTA has been historically slow in Asia-Pacific.
- The scoring matrix manifests that most APAC countries have a formal HTA agency and are following a formal approach to implement HTA, but societal and patient perspectives need to be enforced via pertinent stakeholder engagement. While some HTA bodies of APAC region conduct independent reviews, others rely on findings from HTA reviews in other countries. Barring Australia which had already institutionalized HTA long ago, other countries like South Korea and Taiwan could be designated together as second most mature markets in terms of implementation of HTA in the APAC region.

Table 2: The International Working Group guiding principle for HTA in APAC region

Country	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	
																APAC Countries
Australia	SG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
China	PR	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
India	PE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
South Korea	PE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Taiwan	PE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Japan	SG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Malaysia	PE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Philippines	PE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Table 3: The International Working Group guiding principle for HTA in EU, Canada, and U.S region

Country	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	
																EU Member State, US and Canada
France	PE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Germany	PE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sweden	PE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Spain	PR	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Italy	PR	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Switzerland	SG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Austria	PR	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Belgium	PE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
USA	PR	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Canada	PE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Conclusion

- In emerging markets, the adoption of HTA as more effective decision-making tool in healthcare is majorly restrained by lack of formal recognition and support from government bodies; preexisting political, economic, and social policies; limited technical resources; and lack of real-world evidence.
- Co-collaboration among the developed and emerging countries via sharing good practices and expertise in a transparent manner will help to continue the maturation and adoption of HTA in Asia Pacific.

Conflict of Interest

Pruthi J, Verma A, Krishna A, Rai MK are employees of EVERSANA at the time of conduct of study.

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