Evolving commercialisation opportunities in rare diseases

Rebecca Walker, Leanne Lopez, Paula Urruticoechea, Kirsty Ross-Stewart – CRA International (UK) Limited, 8 Finsbury Circus, EC2M 7EA, London, United Kingdom

Introduction

Despite high approval rates of orphan drugs by the EMA, with the pressure of rising prices we are seeing increased payer sensitivity resulting in a reduced opportunity for reimbursement in the typically targeted first wave markets.[1] In the UK for example, 17% of orphan drugs receiving EMA approval were not selected to undergo an appraisal and can only be reimbursed subject to individual funding requests.[2] Further to this, Germany, who is considered the EU market leader when it comes to orphan drug access, has made recent changes to its AMNOG assessment process which may result in limited patient access and an increase in time-limited decisions.[3] Given the reduced opportunity for achieving pricing and market access in the usual first-wave markets, we have assessed the current and mid-term (5-year) commercialisation opportunity for orphan drugs in 19 common second- or later-wave markets.

Methodology

Commercialisation opportunity (CO) was measured for 19 countries commonly identified as second- or later-wave markets in recent CRA projects. Three dimensions were quantified:

- **Level of commercial risk (y-axis),** determined by the Transparency International Corruption Perception Index[4]
- **Market access potential (x-axis),** composed of 6 elements, weighted according to their importance
- **Time to generate early income (bubble size),** determined by time to commercial sales post-registration

Countries were given a score between 1 and 4 on each of these elements based on the parameters in Table 1.

Table 1: Parameters for measuring commercialisation opportunity (CO)

Opportunity criteria	Weight	Tier 1 criteria (score = 4)	Tier 2 criteria (score = 3)	Tier 3 criteria (score = 2)	Tier 4 criteria (score = 1)
Country size (population)	10%	1st quartile (largest)	2nd quartile	3rd quartile	4th quartile (smallest)
Healthcare expenditure (USD) per capita	10%	1st quartile (highest)	2nd quartile	3rd quartile	4th quartile (lowest)
Payer and reimbursement landscape	20%	High level of healthcare coverage; drug reimbursement decisions influence other countries	High level of healthcare coverage; own HTA but mirror Tier 1 countries for reimbursement criteria	Moderate level of healthcare coverage	Challenges in providing basic healthcare coverage
Early access programmes	20%	Country has a formal early access programme (= 4)		Country does not have a formal early access programme (= 1)	
Orphan disease regulatory and value impact	20%	Has several special provisions for orphan drugs/applicable to orphan drugs	Has 2+ special provisions for orphan drugs/applicable to orphan drugs	Has at least 1 special provision for orphan drugs/applicable to orphan drugs	No special provisions for orphan drugs/applicable to orphan drugs
Orphan drug definition	20%	= <5 in 10,000 (EU)	1 – 5 in 10,000	<1 in 10,000	No orphan drug definition commercial risks
Commercial risks	–	Ranks 1 – 25 on the CPI	Ranks 25 – 50 on the CPI	Ranks 50 – 100 on the CPI	Ranks <100 on the CPI
Time to generate early income	–	Commercial sales within 12 months post-registration; mechanism for pre-commercial sales	Commercial sales within 12 months post-regulation	Commercial sales within 12 - 18 months post-regulation	Commercial sales within < 18 months post-regulation

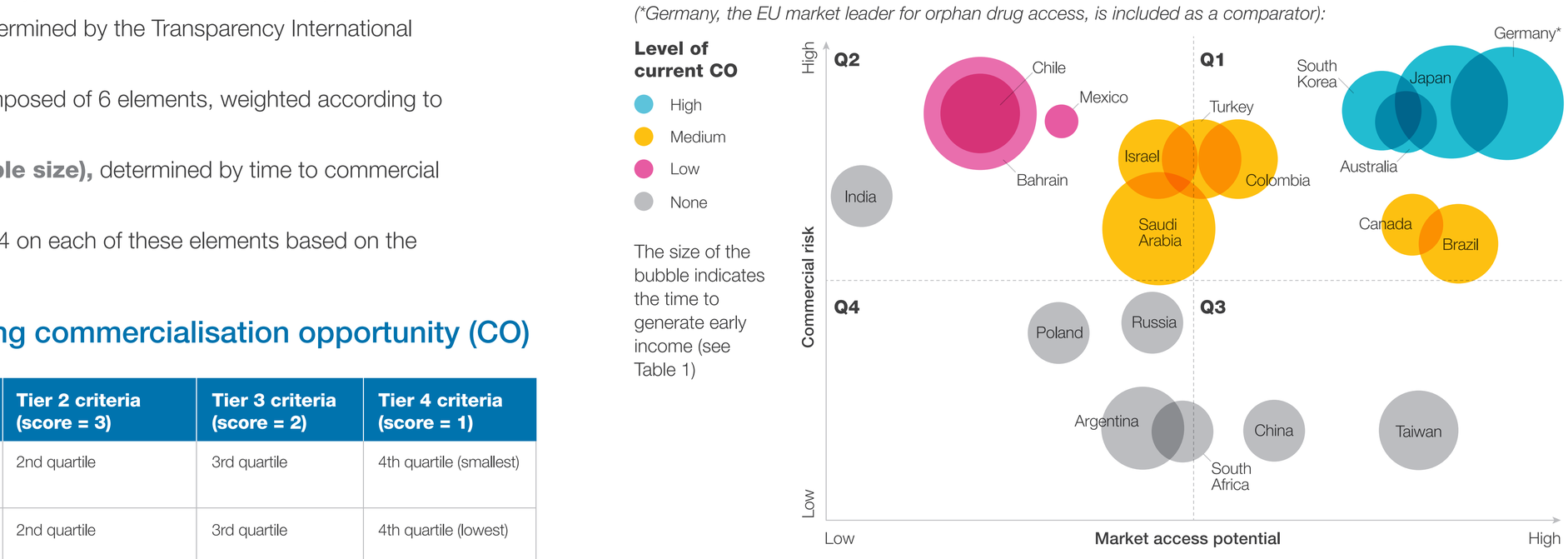
Information for each component was gathered through literature reviews, secondary research and CRA internal expertise. Based on the information collated, markets were then assessed based on the three dimensions, and were subsequently classified as having high, medium or low current CO (Figure 1).

Markets that were identified as having medium current CO were further explored to determine whether their CO could improve in the mid-term. This was assessed through secondary research where potential improvements to the components of the Market Access Potential were identified and analysed for each market. The key factors considered were: national targets to improve healthcare coverage or expenditure, updates to rare disease policy or legislation in terms of regulation, access, funding or reimbursement and the recognition of an orphan definition. Given that the level of commercial risk is largely driven by the political climate, assessing changes to this score in the mid-term held too much uncertainty to be considered for this study.

Results

Figure 1: Current commercialisation opportunity (CO) assessment

*(*Germany, the EU market leader for orphan drug access, is included as a comparator):*



Australia, Japan and South Korea were identified as having the highest current CO. This was primarily due to the level of infrastructure, specific policies for rare disease and low commercial risk in these markets.

Markets with a medium current CO were further analysed for their expected mid-term CO (Table 2).

Table 2: Expected level of mid-term CO for markets with medium current CO (coloured yellow in Figure 1)

Country	Expected mid-term CO	Reason for expected mid-term improvement (if applicable)
Canada	**High**	• Commitment to the creation of a national rare disease strategy by 2023[5] • From 2022 the government will invest $1 billion over 2 years to improve national coverage for orphan drugs[5]
Turkey	**Medium**	• Specific legislation to promote the development and commercialisation of orphan drugs is reportedly being drafted[7, 8] • Orphan drugs can be provided through named-patient import schemes generally at prices that are exempt from international reference pricing
Brazil	**Medium**	• The full implementation of current rare disease may take a while as it still depends on funding adjustments[9] • By law, a network for patient access to orphan drugs through the SUS will be established at union, state and municipality levels over the next 2 years[10] • Draft law supporting temporary, 1 year approval (while ANVISA completes the registration process) for treatments of rare disease was passed in 2018[10]
Israel*	**Low**	• Talks are reportedly ongoing for setting a definition for rare disease[11] • Due to the population demographics, the CO in some rare indications may be higher: e.g. Gaucher's, Behçet's and Prader-Willi Syndrome
Saudi Arabia*	**Unlikely to change**	• The government is supposedly developing specific rare disease health policies however it is unclear what legislative standing these will have[12]
Colombia	**Unlikely to change**	• An orphan drug registry exists as a mandatory tool for specialist centres • Recent changes to the HTA process which increases registration time and therefore delays access to drugs • There is no expedited approval process for orphan drugs[13]

** Due to demographic characteristics, the opportunity in some indications could be higher in these markets*

Conclusions

Currently, Australia, Japan and South Korea represent the markets with the highest current Commercialisation Opportunity (CO). Canada and Brazil also rank highly, however these markets are still classified as having a medium CO due to their lower market access potential score. In the mid-term, we expect that the CO will increase in both of these markets, in particular Canada as outlined in Table 2. We also expect to see a moderate mid-term increase in CO in Turkey, where promising movement in terms of orphan drug legislation is being made on top of their current named-patient import programmes and increasing health expenditure. Due to the prevalence of some genetic diseases, Israel is also a market to consider in the future for some indications.

Current attractive markets	Mid-term attractive markets
Japan	Canada
South Korea	Turkey
Australia	Brazil
Canada	Israel

Key
- Go
- Consider going

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CRA Charles River Associates