

FUTURE PROPHYLAXIS STRATEGIES IN RSV: END OF THE STATUS QUO

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Background

- Respiratory syncytial virus (RSV) is a seasonal respiratory virus and a leading cause of lower respiratory tract infections in infants and elderly
- Current preventive strategies are limited to palivizumab, but new prophylactic treatments are expected to be launched soon
- We conducted a landscape analysis to anticipate what would be the different future prevention strategies for RSV

Methods

- Desk research and literature reviews were conducted in April 2022, looking at multiple sources such as PubMed, Citeline and Datamonitor
- Outcomes of interest were: target population(s), estimated price and coverage per target population and expected barriers.

Results

- Future prophylactic treatments involve mAbs nirsevimab and vaccines, with estimated launch date for 2023/24 and 2024/25 respectively
- Nirsevimab will be indicated for infants while vaccines are being developed in multiple patient segments such as elderly population, pediatrics and maternal immunization
- Insights from 3 KoLs (2 US, 1 UK) are presented on nirsevimab (Figure 1) and RSV vaccines (Figure 2)

Nirsevimab

- Two immunization strategies could be extrapolated: universal immunization or targeted immunization focusing on at-risk individuals
- The choice of the strategy will significantly be impacted by drug price and recommendation from national bodies
- Nirsevimab price could range between \$500 - \$3,000/dose depending on the strategy

Vaccines

- Coverage for maternal immunization is estimated between 20-75% during the first year of launch at a price of \$30-\$40/dose
- Similar coverage is expected in elderly, with a vaccine price between \$30-\$150/dose in case of annual vaccination or \$200-\$300/dose if only one injection is required

Figure 1: Stakeholder insights – Nirsevimab

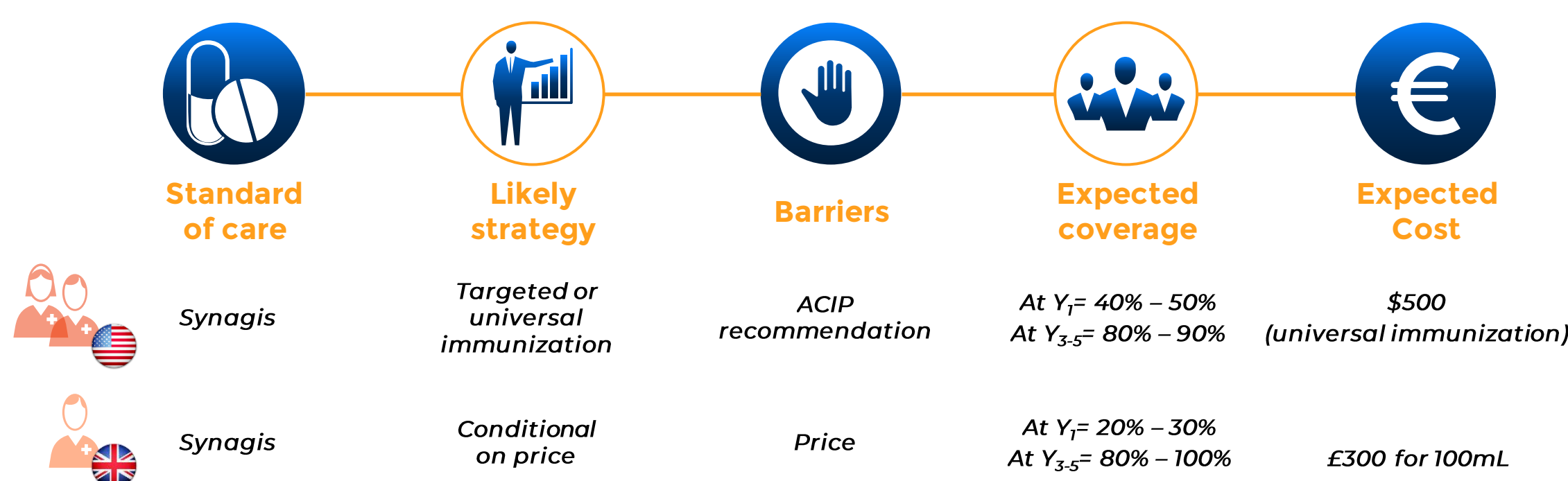
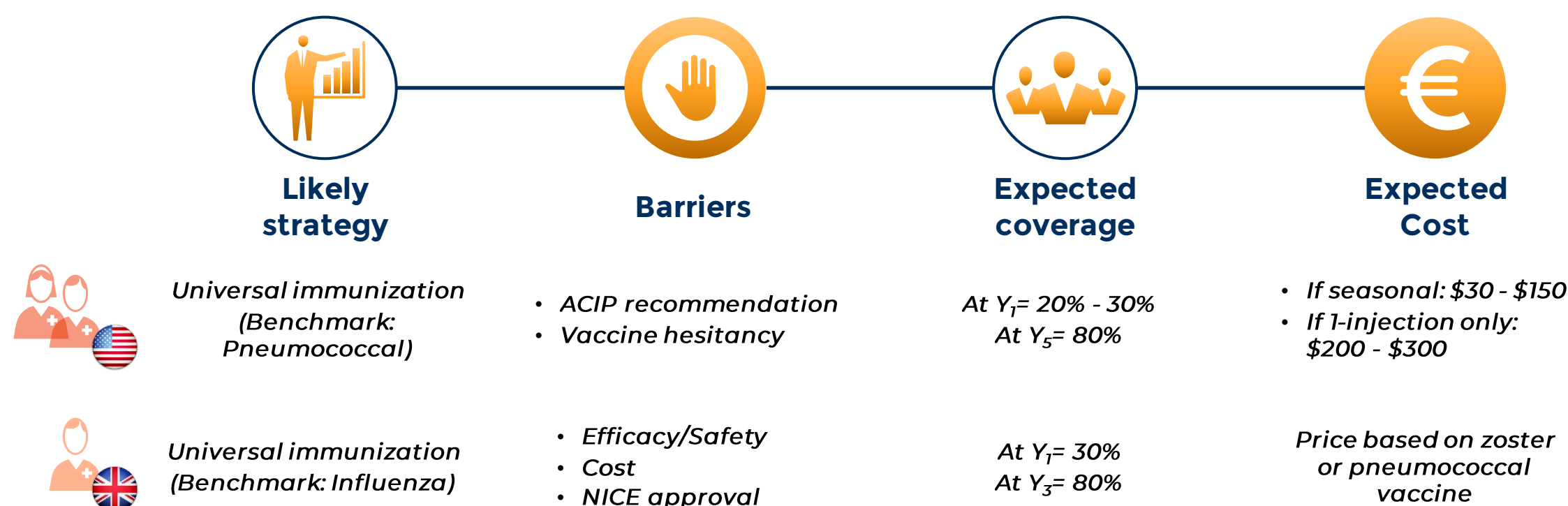


Figure 2: Stakeholder insights – Vaccines (Elderly population indication)



Discussion

- Future RSV vaccines and mAbs will address a significant unmet need which remained unattended for long, as current standard of care (palivizumab) only covers a niche population
- Results from a prespecified pooled analysis were released in May 2022 and report nirsevimab demonstrated an efficacy of 79.5% in infants against medically attended lower respiratory tract infections (including hospitalizations), due to RSV
- However, important uncertainties remain around the future prevention strategies for RSV and particularly how nirsevimab use will evolve once vaccines will be available
- Future launches for RSV vaccines will have to face the following challenges:
 - Potential vaccine fatigue following the COVID-19 pandemic that could limit reaching optimal coverage rates
 - Raise awareness on RSV in populations that may not be familiar with the disease such as elderly populations
 - Maternal immunization remains underused overall in Europe
- For elderly populations, generating data regarding the possibility of a co-administration with influenza vaccines could be precious in case and would allow to optimize vaccine coverage rates for both diseases (provided RSV vaccines would be administered seasonally)