**Introduction/objective**

- Pharmaceutical companies are increasingly seeking payer guidance to provide insights on how to build payer value into the clinical trial program.
- There are multiple ways to seek payer guidance throughout clinical development, either at an EU-wide or a country-specific level.
- The objective of this research was to understand the processes and outputs from different European payer scientific advice procedures (PSAPs) to determine the most suitable approach for pharmaceutical companies.

**Methods**

- Information on four major European PSAPs (NICE, G-BA, EMA-HTA parallel scientific advice, and SEED’s multi payer pilot program) were obtained from secondary sources. Clarifications on the PSAP processes were gained from respective health technology assessment (HTA) bodies.
- The procedures and outputs for the four European PSAPs were analyzed in order to determine the: evidence submission requirements; processes; timelines; fees; submissions conducted and outputs.

**Results**

- Manufacturers seek early payer scientific advice from NICE, G-BA, EMA-HTA parallel scientific advice and SEED to ensure their clinical development program is relevant to payers.
- The four main areas in which guidance is sought are:
  - Choice of comparators
  - Choice of endpoints
  - Health economics.
- The process for scientific advice is similar for NICE, G-BA, EMA-HTA parallel scientific advice and SEED involving four steps (Figure 1). However, the level of complexity varies between the procedures.
  - The number of stakeholders (HTA bodies involved), the level of feedback and the cost differ between PSAPs (Table 1).
  - PSAPs are time intensive, varying from 10 weeks for the G-BA to 26 weeks for EMA-HTA parallel scientific advice (Figure 2).
- Overall, the number of PSAPs increased over a five-year period from 2011 to 2015 (Figure 3).
  - The numbers of PSAPs undertaken by EMA-HTA parallel and G-BA have tripled since 2011 (Figure 3).
  - In Germany, an increase was seen following the introduction of AMNOG in 2010, however the number of German PSAPs have plateaued in recent years (Figure 3). It can be hypothesized that the short review time (10 weeks) and relative low fees (~€20,000) are supporting factors behind the large number of G-BA requests.
  - Both NICE and G-BA are engaged in an increasing number of EMA-HTA parallel scientific advice as well as SEED PSAPs (Figure 4). It is hypothesized that his might account for the reduction in the number of NICE requests.

**Discussion and conclusion**

- PSAPs can provide pharmaceutical companies with valuable insights into phase III trial design, health economics, and payer expectations at time of launch. Typically, the level of product and therapy area uncertainty can drive PSAP selection.
- If there is significant uncertainty, national advice procedures (e.g. NICE, G-BA) should be sought to gain detailed country specific insights. However, this must be balanced against the additional cost and resource implications when seeking advice from more than one country.
- EMA-HTA parallel scientific advice is most suited for products with limited uncertainty, where companies are looking for confirmation that their clinical program is acceptable to payers across multiple markets.