Acceptability is defined as “the overall ability and willingness of the patient to use and its care giver to administer the medicine as intended” and it is determined by the characteristics of the medicine and the user [1]. Acceptability of medicines for paediatric use is critical to ensure patient adherence and consequently treatment success. However, developing an age-appropriate and acceptable paediatric formulations remains a challenge [2]. We hypothesize that we could design a predictive model of acceptability based on the characteristics of medicines and users. Our research program aiming at developing a tool that shall participate to the acceptability assessment standardization during the paediatric formulation development.

The purpose of this preliminary study is to evaluate the feasibility of identifying acceptability profiles of medicines using parents’ observations and data mapping process.

• Medicine: name and required dose.
• Child: gender, age and treatment initiation.
• Parent’s observations: result of the intake, child’s reaction and manipulation—administration time.
• Administration: methods used to achieve it and who is responsible for it.
• Patient and caregiver perceptions: ease experienced in preparing and administering the medicine and comments on acceptability.

Results - Sample characteristics
66 questionnaires were collected before 12th July 2015.
52 distinct medicines were assessed including 11 assessed more than once.

Results - Mapping
This map contains the variables (parents’ observations and methods used to achieve administration) and the medicines.

The medicines assessed more than once are labelled by a letter on the map.

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Results - Medicines’ acceptability
These charts present the observations made by parents during the first administration.

This chart presents the methods used to achieve the first administration.

The medicines assessed more than once are labelled by a letter on the map.

Conclusion
These preliminary results showed that cluster mapping offers an interesting process to define distinct acceptability profiles and to assign medicines to each profile. Recruitment is ongoing and will be open to other districts and countries during several seasons to enrich our database.

The classification of medicines will be linked to the characteristics of the users and the medicines considered as the most likely to determine the acceptability.

These data will enable us to design a predictive model of accessibility of medicines for paediatric use.

References