Background
Medication shortages and unavailabilities have become a growing worldwide issue due to their possible clinical impact: reasons can be related to parallel trading (drug-unavailability) or lack of production (drug-shortages). When they occur it may be required to identify a similar drug or to import the drug from abroad.

Objective
The aim of the work was to perform an analysis of drug-shortages (DSs) and drug-unavailabilities (DUs) occurring at the Centre from January 2018 to June 2019.

Material and methods
The analysis included every DS and DU occurred for every drug included in the Formulary from January 2018 to June 2019. Any drug-request received by the Pharmacy during the considered time was analyzed to extract the presence of DU or DS and involved drug. Classification of DU or DS was performed through consultation on DS list published by Italian Medicines Agency. The analysis was performed for three time-point: first semester 2018 (S1), second semester 2018 (S2), first semester 2019 (S3). Also, an analysis of involved medication-group over time was performed.

Results
The analysis detected DU for 19 drugs included in the Formulary: S1 (2: intravenous Ampicillin 1g, Ceftazidime 1g), S2 (5: intravenous Midazolam 5mg, Oxacillin 1g, Iron Gluconate 62.5mg, Metilprednisolon 40mg, Gluthatione 600mg), S3 (12: intravenous Piperacillin/Tazobactam 2.25g and 4.5g, Lisyne acetilsalicilate 500mg, Hydrocortison 100mg, Suxanmhenotonium 5mg, Ceftazidime 1g and 2g, Cefepime 2g, Gluthatione 600mg, Metilprednisolone 40mg, Heparin 5,000units, Atracurium 50mg). 10 cases of DS requiring importation were found: S1 (4: Mupirocin 2% nasal ointment, intravenous Clorphenamine 100mg, Alprostadil 20mcg, Etilerfin 10mg), S2 (3: intravenous Diazepam 10mg, Lorazepam 4mg, Fructose 5G), S3 (4: oral Labetalol 5mg, Danazol 200 mg, Sodium nitroprusside 50mg, intravenous Fructose 5G). Medications groups involved in DU and DS were: antibiotics (31%), non-steroidal anti-inflammatory drugs (20.7%), benzodiazepine (10.4%), anti-hypertensive (10.4%), dietetics (10.4%), anesthetics (6.9%), urological drugs (3.4%), antihistamines (3.4%), adrenergic drugs (3.4%). The rate of DS didn’t change over time, while DUs increased from S1 to S2 (+150%) and from S2 to S3 (+150%).

Conclusions
While the number of DS requiring drug importation remained constant, DUs strongly increased over time leading clinicians to identify similar treatment. Analysis didn’t show any prevailing medication-group over time.

Contact information
zovi.andrea@asst-fbf-sacco.it

https://www.eahp.eu/25-2SPD-022