BACKGROUND AND IMPORTANCE

- Prevention of drug related problems (DRP) beneficially affects patient outcomes.
- Children who are treated for haematopoietic diseases are highly susceptible to DRP.
- Paediatric clinical pharmacy services (CPS) have shown a positive impact on several outcome measures, including reduction of DRP. [1]

AIM AND OBJECTIVES

To assess the impact of CPS in a tertiary care centre specialized in haematopoietic diseases.

MATERIALS AND METHODS

Where, when?
- St. Anna Children’s Hospital, Department of Paediatrics, Medical University of Vienna
- A: Haematopoietic diseases, 11 beds
- B: HSCT unit, 10 beds
- June - December 2020

What, how?
- One clinical pharmacist (CP)
- Provision of CPS
  - medication reviews
  - ward round participations
  - specific drug information

RESULTS

- During 32 ward rounds 230 DRP were addressed by PI in 36 patients.
- Ø 8.6 ± 3.5 Interventions/ward round
- Ø 1.8 ± 1.2 Interventions/patient/ward round

<table>
<thead>
<tr>
<th>PATIENTS</th>
<th>Patients (n)</th>
<th>Median age (years)</th>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>7 (0.4-17)</td>
<td>haematopoietic diseases, HSCT</td>
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<table>
<thead>
<tr>
<th>PHARMACEUTICAL INTERVENTIONS (PI)</th>
<th>n</th>
<th>Acceptance rate %</th>
<th>Significant % (by CP)</th>
<th>Significant % (by experts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>230</td>
<td>73.5</td>
<td>66</td>
<td>69</td>
<td></td>
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</tbody>
</table>

ECONOMIC BENEFIT

- Costs of CPS provision (€) 7,200
- Reduced follow-up costs (€) by prevention of 11 adverse drug reactions 14,300 - 27,500
- Reduced follow-up costs (€) by identification of 24 adverse drug reactions 31,200
- Savings (€) 38,800 – 51,500

OUTCOMES

- Documentation of DRP, PI and Follow-Up
- Assessment of PI for clinical significance by the CP and experts (2 haematopoietic, 2 clinical pharmacists) [2]
- Estimation of economic benefit: drug therapy cost reductions and avoided follow-up costs i.e. prevention and management of adverse drug reactions [3]

CONCLUSION

- This evaluation showed that CPS in a tertiary care centre specialized in paediatric haematopoietic diseases are capable to identify and prevent DRP by clinically significant PI.
- The estimated economic benefit of CPS was at least 6-fold higher than their costs. Based on the results, CPS were expanded in our hospital.

References