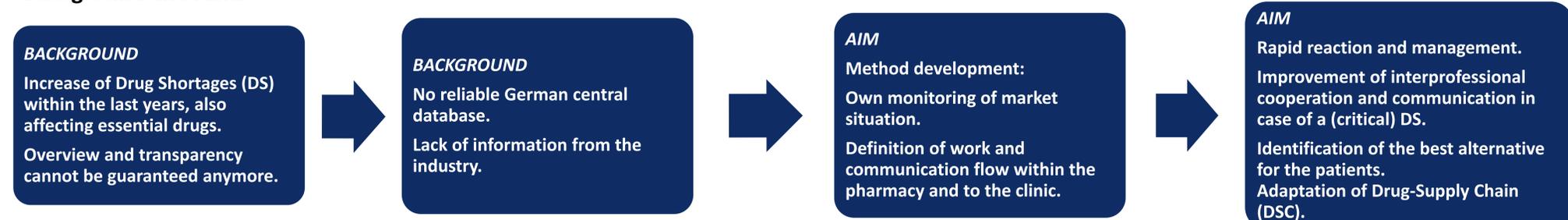


# ZSPD-015: RISK-ADAPTED MANAGEMENT OF DRUG SHORTAGES TO ENSURE PROPER CARE FOR PATIENTS IN MEDICAL NEED

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## Background and Aims



## Material and methods

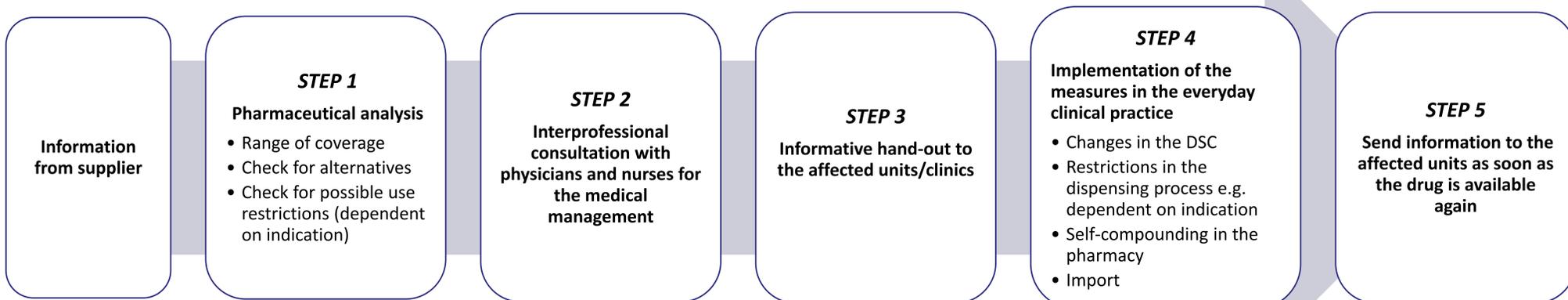
Development of a colour-coded algorithm depending on drug availability in an EXCEL-Sheet for our 1600 bed maximal care facility upon each Information from the industry, whether automatically informed or after active call. The sheet is up-dated manually by a pharmacist.

Yellow	Orange	Red	Blue
<ul style="list-style-type: none"> <li>Alternative available on the market</li> <li>Consider brief information to the affected units</li> <li>Change of supplier needed</li> </ul>	<ul style="list-style-type: none"> <li>Usual supplier has an alternative, e.g. different package size</li> </ul>	<ul style="list-style-type: none"> <li>Alternative available, but with relevant changes, e.g. import</li> <li>Very limited supply</li> <li>Internal compounding at the pharmacy</li> <li>No alternative</li> <li>Consider interprofessional consultation</li> <li>Information hand-out to the affected units</li> </ul>	<ul style="list-style-type: none"> <li>DS was recorded but we were not affected in any form e.g. due to sufficient stock.</li> </ul>
Check if any changes have to be made to: <ul style="list-style-type: none"> <li>master-data</li> <li>ward-order-system</li> <li>kanban-system</li> </ul>			

Cut-out from the EXCEL-Sheet:

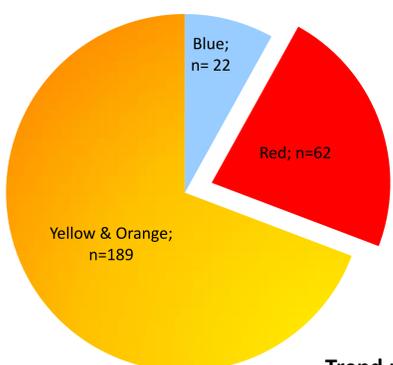
Internal Ref.-No.	Name	Internal Nr.	Ordered on	Supplier	Estimated shortage until	Alternative (supplier)	Reason/ Comments	Hand-Out to unit/clinic	Received on
2018.55	Theophylline Ampoules	100345	11/01/2018	Leyh Pharma	Unknown	None. Import from Austria.	Stockpiling: Consultation with public officer (pharmacist) needed	Yes, Info-sheet	09/07/2018 (German product)
2018.57	Erythromycine Sirup	107079	03/01/2018	Hexal	Unknown	Infectopharm	None	Yes, e-mail	Still open
2018.225	Flupentixol Drops	103097	Not ordered yet	Bayer	Unknown	Tablets	Informative e-mail from Bayer	No	26/07/2018 Sufficient stock

Algorithm of DS-Management of an essential drug (classified as red):

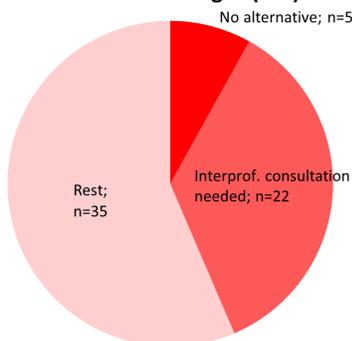


## Results

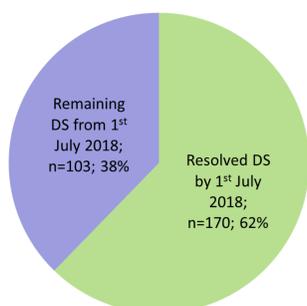
Drug Shortages 1<sup>st</sup> January 2018-30<sup>th</sup> June 2018



Critical Shortages (red)



Trend until 30<sup>th</sup> June 2018



## Conclusions

- Standard procedures and interdisciplinary communication paths are necessary.
- Different decisions have to be made for each DS individually.
- Restrictions of therapeutic alternatives need to be determined.
- Close collaboration among pharmacists, nurses, physicians and even logistics is inevitable and may as well have to be reinforced in the future due to the continuous increase of DS.
- The development of this algorithm has provided our clinic with an overview which enables every co-worker of the pharmacy to find the information needed fast.
- The colour-coded list allows every co-worker to immediately understand the importance and risk of the listed DS.
- One interprofessional consultation lasts 1 hour on average. The management of DS of essential drugs takes up approximately one full time equivalent of a pharmacist. In addition resources of medical staff have to be taken into account.
- A grater impact is expected in the next years due to the current political situation (Brexit), which will most likely increase the time and energy spent on those issues on all sides. This might also lead to the need to recruit more pharmaceutical staff.
- The publishing and communication of each drug shortage in a centralized national database should become mandatory in Germany.
- It would be helpful to get more support on the search and supply for alternatives by the authorities, e.g. from the Ministry of Health or attached departments, in case of a DS of an essential drug. This would at least diminish the time invested in each German hospital.
- The local drug production should be supported. Despite higher initial costs, the investment may well be worth it in the long run.

