

The Opioid Working Group: An interdisciplinary working group to improve the correct prescription and application of opioids in the hospital setting

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Background and Objective

The Opioid Working Group at the University Hospital Basel – a teaching hospital in northwest Switzerland with approximately 38`000 hospitalizations per year - is an interdisciplinary working group including representatives from different professions (physicians, nurses, pharmacists) and departments (medicine, surgery, gynecology, emergency, pain therapy, palliative care, pharmacology and toxicology, hospital pharmacy, patient safety and information technology).

Due to critical incidents involving opioids reported internally at the University Hospital Basel in 2018, there was an urgent need to evaluate underlying reasons for these events. The Opioid Working Group was established with the aim to mitigate risks in association with opioids used in the hospital by promoting the correct prescription and application of opioids, and therefore to improve patient safety.

Setting and Method

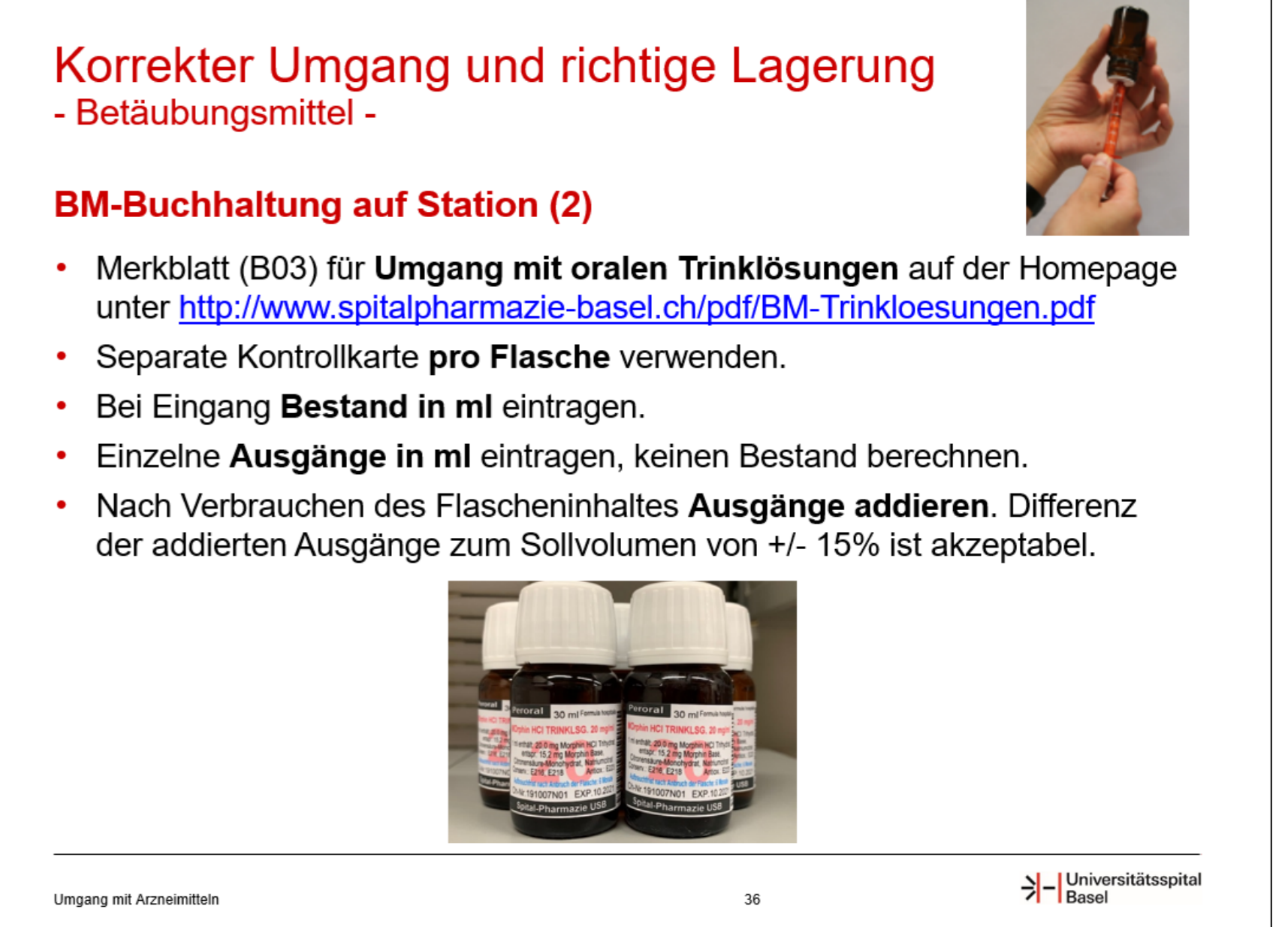
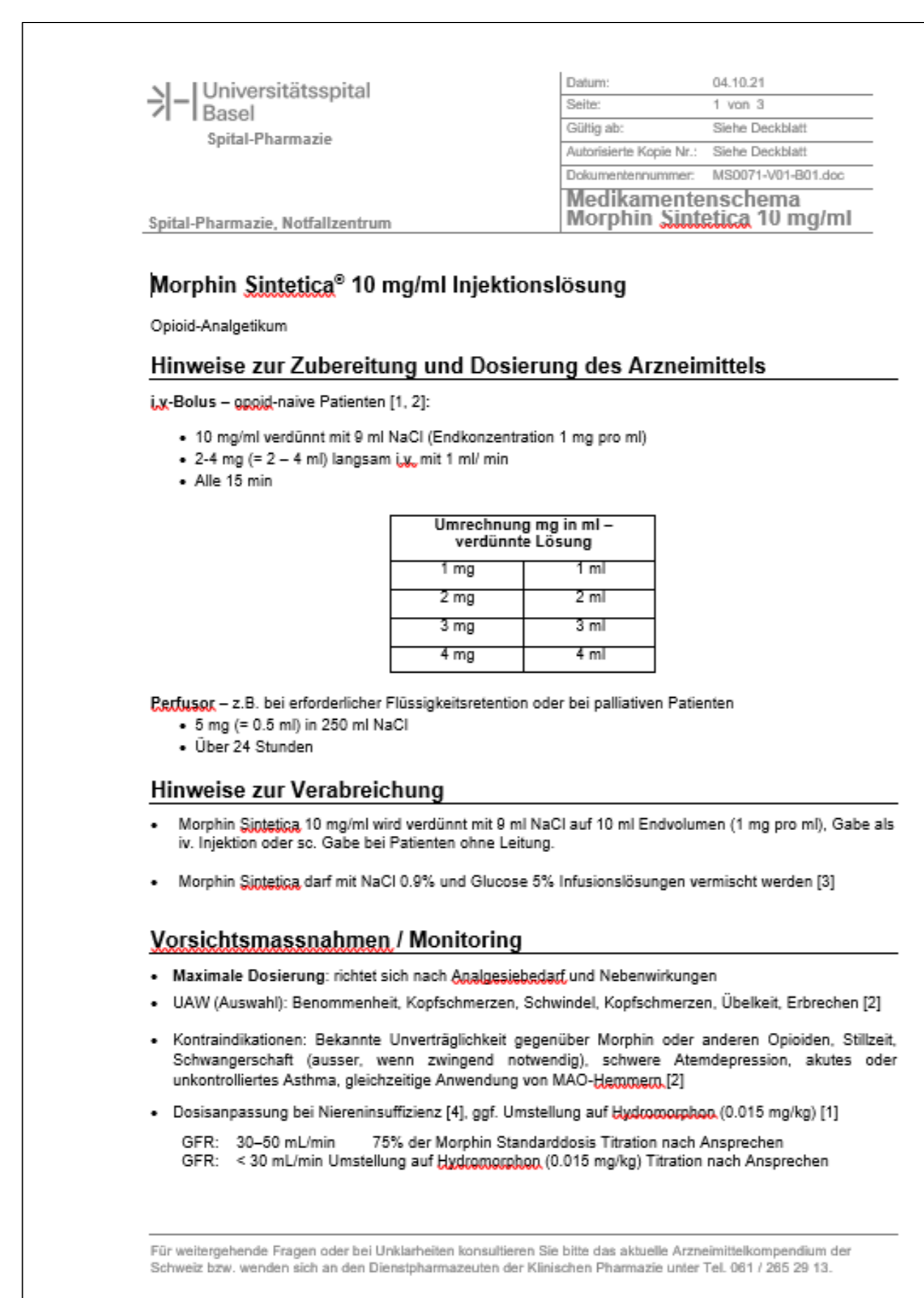
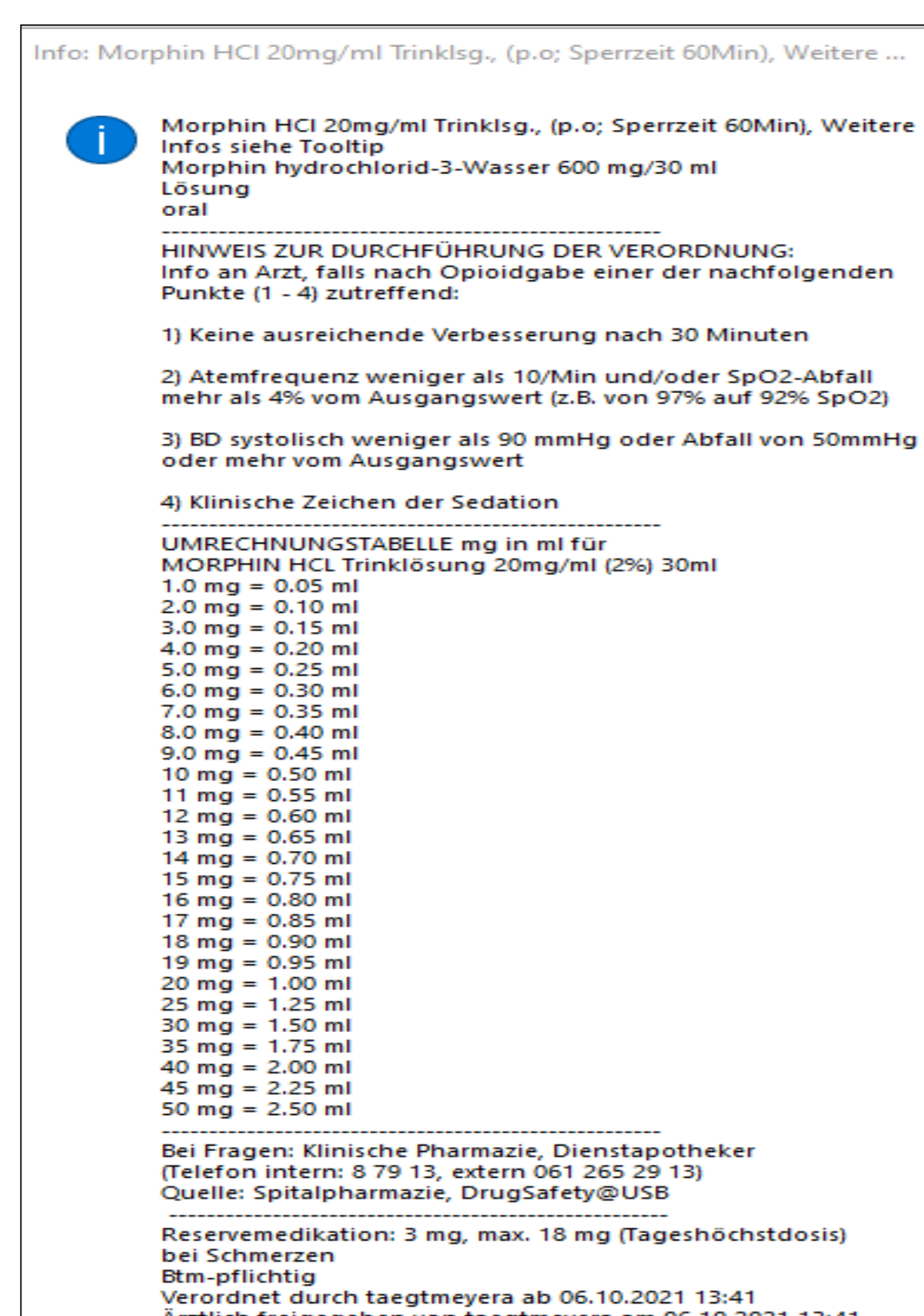
First of all, a thorough analysis of the critical incidents was undertaken by the working group in order to identify the underlying reasons.

This analysis revealed as recurring themes:

- prescribing and application errors, such as non-observance of kidney failure
- pharmacodynamic interactions of opioids with other prescribed drugs
- inadvertent overdosing – in particular with liquid drug formulations
- patient mix-ups

Consequently, the following steps were being taken to address these risks:

1. Optimization of the prescribing software including opioid prescription templates, links to existing opioid unit conversion tables for liquid forms of diamorphine, morphine, hydrocodone and oxycodone (mg to ml)
2. A clearer display of “as required” opioid prescriptions in the patients’ electronic drug charts.
3. Preparation of Standard Medication Preparation Schemes for nursing staff of the emergency department
4. Development of an additional patient-specific package label for parenteral diamorphine (concentration, patient initials, date of reconstitution and date of expiry of reconstituted solution)
5. Revision of the hospital pharmacy guideline “Ward Inspection” with a special focus on the labelling, application and disposal of intravenous and oral drugs (to include opioids). This included the update of the respective e-learning for physicians, nurses and the pharmacy staff in 2020.



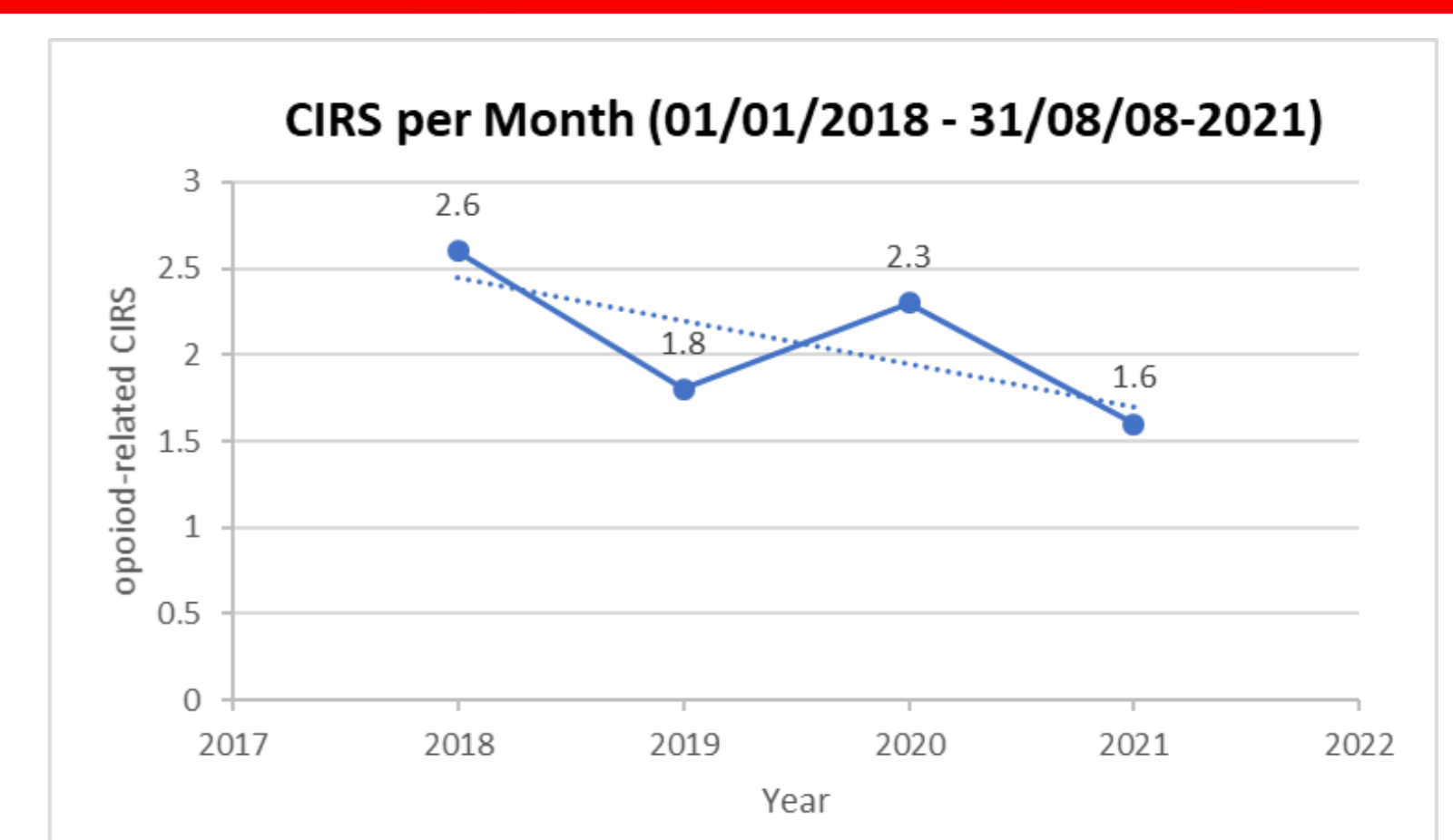
Results

The above mentioned deliverables were launched in November 2020 with an internal communication by newsletter to the University Hospital of Basel.

Moreover, the representatives of the opioid working group introduced the new tools at their respective department and team meetings. In order to measure success, opioid related CIRS cases were collected in 2021 and compared to opioid-related CIRS in the years 2018 -2020.

A reduction of opioid related CIRS cases from 31 (approx. 2.6/ month) in 2018 to 13 (approx. 1.6/ month) until the End of August 2021 could be observed.

Year	CIRS/ Month
2018	2.6
2019	1.8
2020	2.3
2021	1.6



Conclusion

The deliverables developed by this working group helped to reduce the number of monthly reported CIRS cases related to opioids.

An interdisciplinary interaction of physicians, nurses, pharmacists and representatives from patient safety, drug safety and IT, all involved in the prescription, distribution and application of opioids, as well as in the management of supporting electronic systems, is key to improving patient safety.

Literature:

https://patientsafetymovement.org/wp-content/uploads/2016/PSMF-Volume_online_interactive.pdf

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The Opioid working group will continue its successful work (5 meetings/ year) and develop additional supporting materials and tools based on customer feedback. This includes for example the launch of an e-learning showing the optimal use of the deliverables.

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