Regular Laboratory Checks For Ileostomy Patients After Surgery Are Not Performed Comprehensively, But Could Result In Better Health Outcomes

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Objective

- After ileostomy formation patients can face several problems in the first year's post surgery. High output stoma (HOS) is one relevant condition that can lead to high costs in the health care system and a high burden for the patient.
- The aim of this study was to evaluate how laboratory checks are used as a screening tool in Germany.

Method

- Newly created ileostomy, colostomy and urostomy patients from a claims data set of 2012-2017 were identified retrospectively based on ICPM-GM codes.
- The database covers 4.8 million insures and is scalable to the whole German population.
- Individuals with any other ostomy surgery or device prescription one year before stoma-creation were excluded, only continuously insured individuals included and followed-up for 2 years after surgery.
- Additionally, a PubMed literature search was used to assess issues faced by patients with a HOS condition.

Results

- 29% of Ileostomy patients in the data set do not get any laboratory check in the first two years after surgery, although in the first year, an average of 6.2 times laboratory checks is received per patient (interval time 60.9 days).

Figure 1 - Percentage of patients receiving Laboratory check in the first 2 years post stoma surgery

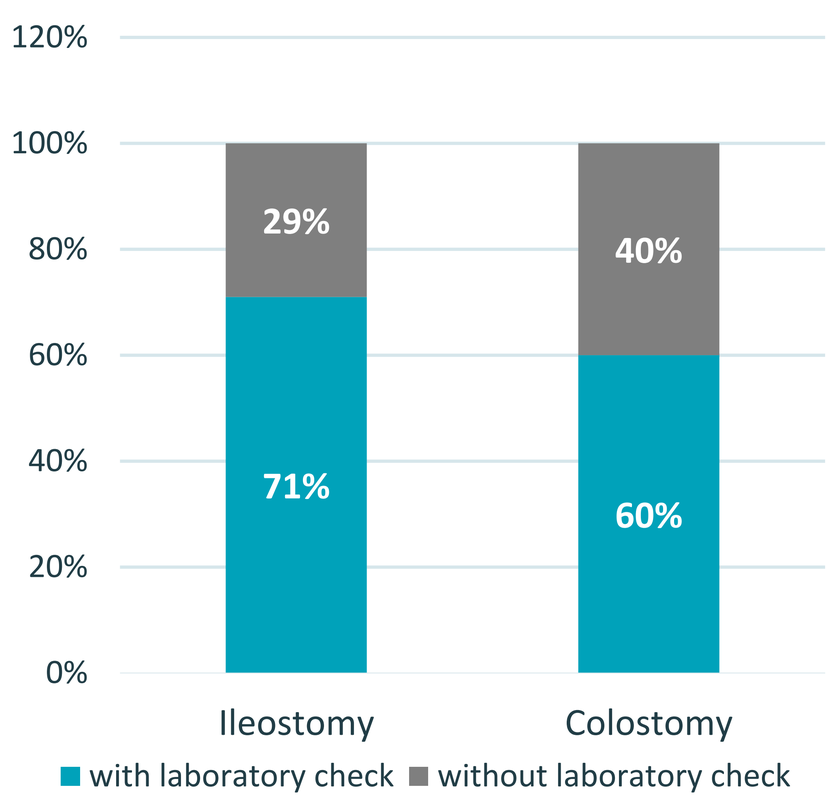
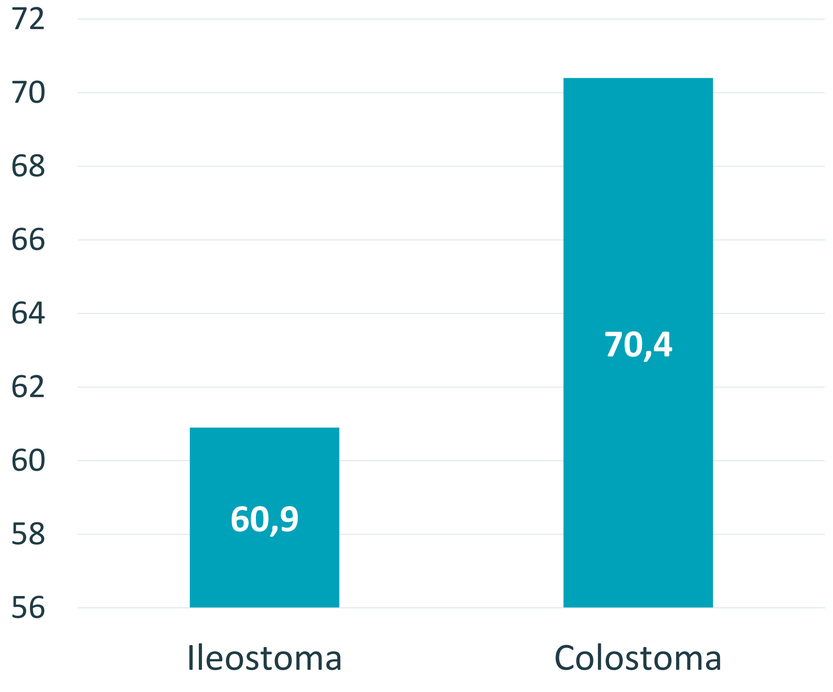
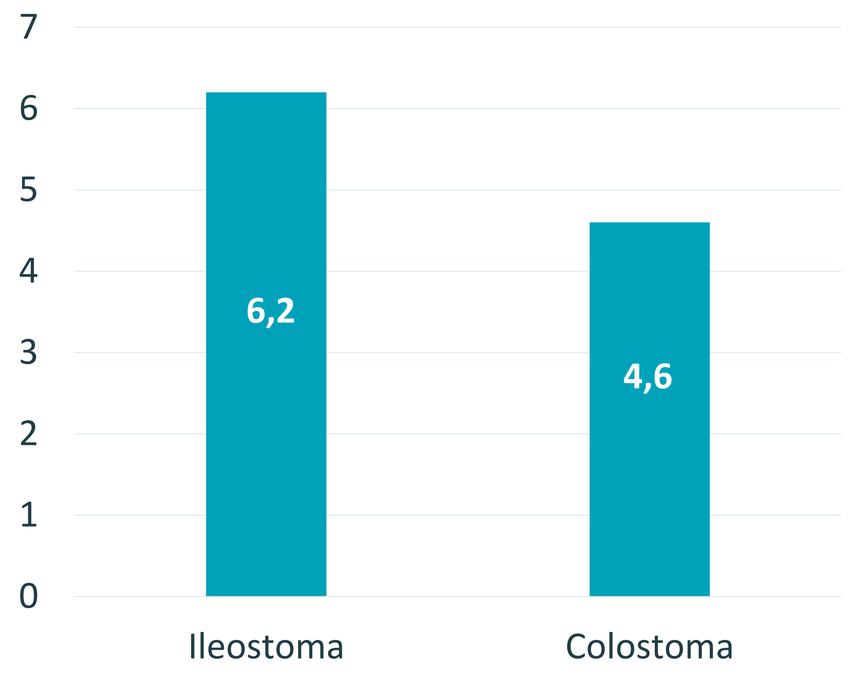


Figure 2 - Number of days between each laboratory check in the first-year post stoma surgery



- A retrospective study by Charité Berlin between 2012-2018 reported 13.9% of ileostomy patients developing a HOS condition. The study also suggested to identify and treat HOS early[1].
- Readmission rate due to HOS condition was 23.7% from a study conducted between 2010-2020[2].

Figure 3 – Frequency of laboratory check in the first-year post stoma surgery



Discussion

- Increasing the frequency of laboratory checks especially for ileostomy patients has the potential to reduce the number of readmission cases after a stoma surgery.
- Laboratory measures should include levels of sodium, potassium, magnesium, serum urea and creatinine, and urinary sodium[3].
- The pooled incidence of readmission due to dehydration was 6% within 30 days, with an all-cause readmission rate of 20%, hence dehydration is an essential condition for stoma patients[4].
- Hence regular monitoring through laboratory checks can essentially help in setting the fluid and nutrition management for the HOS patients.

Conclusion

- The study showed that not all patients with an ileostomy get regular checkups, although described as beneficial in the literature.
- Continuous follow-ups and regular monitoring could be helpful to identify early HOS and reduce the readmission rate, resulting in better outcomes.

References

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[2] Assaf, D., et.al (2021). Predisposing Factors for High Output Stoma in patients with a Diverting Loop Ileostomy After Colorectal Surgeries. *Annals of Coloproctology* 2023, 39(2),168-174

[3] Mountford, CG., Manas, DM., Thompson, NP., (2013). A Practical approach to the management of High-output stoma. *Frontline Gastroenterology* 2014, 5, 203–207. doi:10.1136/flgastro-2013-100375

[4] Vogel, I., et. al (2022), Overall readmission related to dehydration after creation of an ileostomy: a systematic review and meta-analysis. *Techniques in Coloproctology 2022*, 26, 333–349

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