Severity grade of adverse reactions among Norwegian blood donors reported to the Norwegian Hemovigilance system in 2021-2023

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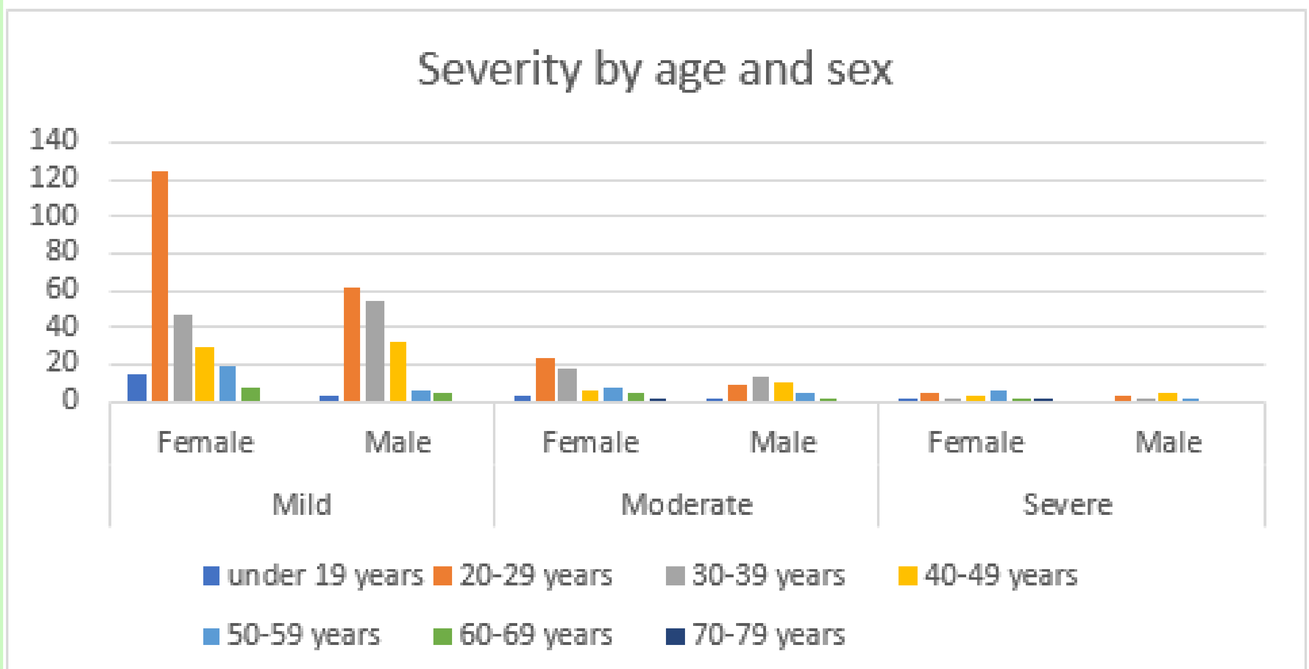
INTRODUCTION

- The Norwegian Hemovigilance system was established in 2004, and have registered adverse reactions in blood donors since then.
- The system collects not only the most serious reactions, but also reactions as vasovagal reactions without fainting, or rebleeding after venesection.
- Throughout the years, the format of the reporting system has changed several times. In 2021, we implemented a new, fully digitalized reporting system.
- Here we present the data collected by this system for the last 3 years on complications among Norwegian blood donors.

METHOD

- This retrospective study included all adverse reactions after blood donation reported to the Norwegian Hemovigilance system between 01.01.2021 and 31.12.2023.
- We described the severity grade reported for the different type of adverse reactions, as well as the influence of gender and age.
- We encourage reporting of adverse donor reactions off all severity types (excluding mild or moderate VVR without loss of consciousness).
- We use the severity grade scale based on the AABB severity grading tool for blood donor adverse events.

Figure 2.



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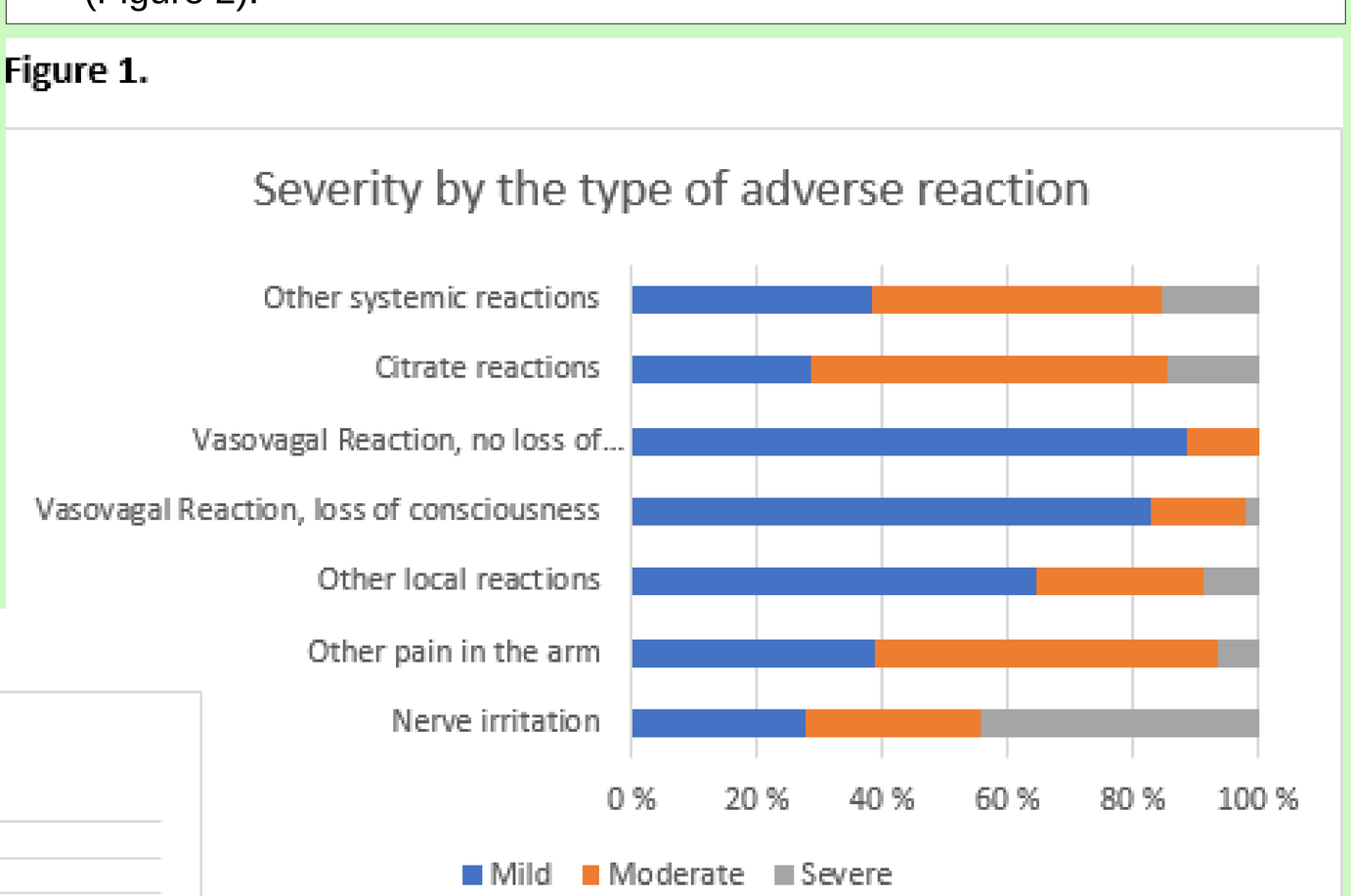
RESULTS

- The system received 552 unique reports of complications in blood donors in the study period.
- Most of the reactions, 75%, were of a mild severity type, 19, 5% were categorized as moderate, and 5, 5% as severe.
- 351 blood donors fainted during the study period. 83% of these were of a mild type, 15% were moderate and 2% were severe.
- Nerve irritations on the other side were generally more severe. Of the 36 reported reactions, 44% were severe.
- Unfortunately, 69% of these severe reactions were reported to be not preventable (data not shown here).

- The rest of the reported severe reactions were “other pain in the arm“, “other systemic- or local reactions“(including arterial punction with symptoms), and “citrate reactions“ (Figure 1.).

- The hemovigilance system received more reports of adverse reactions in female, than male blood donors. These tend to belong to younger age categories and experienced generally mostly mild adverse reactions (Figure 2).

Figure 1.



CONCLUSIONS

- 5,5% of the reactions were reported as severe. Over a half of these severe reactions, consist of nerve irritation after the blood donation.
- The collected data suggest that there are more adverse reactions among female blood donors, especially in the younger age categories. As we lack the national data about gender distribution among Norwegian blood donors, one could only speculate if there is a higher incidence of reactions in these donors, or not.

Norwegian Medical Products Agency