IAKH

Critical incident report from the IAKH-Fehlerregister

in cooperation with the DIVI and the CIRSmedical Anästhesiologie of BDA/DGAI and ÄZQ

Report via ☒ **IAKH Fehlerregister** ☐ **CIRSmedical AINS of BDA/DGAI and ÄZQ**

Topic/Title	**Insufficient number of blood units for major spine surgery case and known antibodies**
Case -ID	**18-2010-t5e7**
Case report (approx. as entered)	Due to a high expected blood loss in a major spine redo case, 10 PRC had been ordered by the surgeon. Antibody screen detected Anti-P1. During surgery, 4 PRC were used. On postoperative day 4, revision surgery was necessary but not urgent- also with expected considerable blood loss, A renewed blood order was not done since the remaining 6 units in the blood bank were considered enough. At skin incision, the anaesthesiologist ordered a blood unit due to the existent anaemia and got the information that the cross match test had been outdated (3 days without new transfusion). Only with delay and tremendous work load in the blood bank, the time delay could be managed, until blood units with fitting antibody constellation had been found.
Problems (here: questions that arise the possibility of problems- there had been no possibility for follow up queeries)	• **Lack of communication to and from blood bank** • **Induction of anaesthesia without check for blood availability** • **Missing knowledge about the limited validity of the crossmatch test**
Process Step concerned **	**2-blood order**
Circumstances	**Routine, revision surgery, ASA 3, experienced physicians**
Good elements ("as reported" or criticism of the CIRS Board)	**Hard blood lab work . Attempt to increase the oxygen delivery by high FiO2 ventilaton in the anaemic patient**
***Risk of reccurrence/Likleyhood**	**2 of 5**
***Potential risk for patient damage**	**5 of 5**
Board recommendation (Suggestion of a change of process and/or structural quality by introduction /installation/reeducation of the following measures) **SOP= Standard operating procedure**	**Process quality:** • **SOP Blood order** • **SOP Induction of anaesthesia following checking blood availability** • **Helsinki Check list for patient safety with patient entrance in OR: Identity check and blood availability is recommended** • **Education about Cross Match test , its limited**

	validity and antibodies • Check list – signing up for surgery includes check of available blood units and valid cross match test • Report to the transfusion board Strukture quality: • software use for OR-Management: check in requires the confirmation of the blood bank-blood units ready and available with valid cross match • linkage of the patient data management system to the blood bank software

*Risk Grades:

Frequency, Risk of reoccurrence		Potential risk for patient damage	
1/5	very rare max 1/100 000	1/5	very little acute injury/no permanent damage
2/5	rare max. 1/10 000	2/5	minor acute injury/slight permanent damage
3/5	medium max. 1/1000	3/5	considerable acute injury/ minor permanent damage
4/5	frequent, min. 1/100 damage	4/5	profound acute injury / considerable permanent
5/5	usual/common, min. 1/10	5/5	death/severe permanent damage

****Allocation of errors/near misses in the process of administration of blood or coagulation products**

1. -blood sample withdrawal
2. -blood order
3. -laboratory
4. -handling or storage
5. -blood product release, transportation, or administration
6. -sample/product/patient identification