



## Healthcare Organization Commitment

### Contact Details

---

#### Name

Professor Kai Zacharowski

#### Phone

+ 496963015998

#### Email

kai.zacharowski@kgu.de

#### Position

Chair & Medical Director, Department of Anesthesiology, Intensive Care Medicine & Pain Therapy

#### Organization Name

University Hospital Frankfurt

#### Organization Address

7 Theodor-Stern-Kai  
Frankfurt am Main Süd, Darmstadt  
Frankfurt am Main, 60590  
Germany

### Commitment Details

---

#### Commitment Name

Patient Blood Management (PBM)

#### Participants

Patrick Meybohm

#### What Patient Safety Challenge does your Commitment address?

Challenge 5 - Patient blood management

## Commitment Start Date

01/01/2018

## How Many Hospitals Will This Commitment Represent

100

## Action Plan

The motivation for implementing Patient Blood Management is based on the finding of anemia, especially in the operative setting, representing a risk factor for increased odds of in-hospital mortality as well as additional complications. All too frequently, patients already have insufficient blood volume when presenting for surgery. During hospitalization, intra- and postoperative blood losses as well as diagnostic blood losses from phlebotomy can further impair patient's own blood volume. Commonly, and in many cases without considering alternatives, treatment is primarily realized based on transfusing allogenic red blood cells. Providing an optimal preoperative preparation as well as reducing blood losses during hospitalization are two prime goals of Patient Blood Management. Prior to surgery, patients are checked for anemia. In many cases anemia is caused by empty iron stores that impair a sufficient blood formation. If so, blood production can be amplified via iron supplementation, allowing patients to increase their blood volume by own efforts. Additional care is taken so that blood sparing techniques are used intra- as well as postoperatively. For instance, coagulation is optimized, and blood lost during surgery is salvaged, washed and retransfused. Whenever possible, smaller blood collection tubes are used to reduce the volume of phlebotomy related blood losses. Owing to technical advances, in many situations smaller blood collection tubes can be used to reduce phlebotomy related blood losses without impairing the quality of diagnostics. Consequently, blood remains where it is needed: Within the patient's body! These measurements not only allow for a better patient recovery they also help to reduce the application of allogenic RBC and thereby to spare this valuable resource. If indicated Patient Blood Management supports the rational use of allogenic RBC. The number of PBM initiatives is growing worldwide. In Germany, PBM was initially implemented at the University Hospitals Frankfurt, Bonn, Kiel and Muenster. With the initiation of the German PBM Network many additional hospitals were inspired to likewise implement PBM. Currently, Patient Blood Management is evolving to a major quality indicator in German hospitals. The European and World PBM networks were founded to foster the implementation of Patient Blood Management on a global scale. Since 2011 the World Health Organization urges its member states to support the implementation of PBM. <https://www.patientbloodmanagement.de/en/medical-rationale/> <https://www.patientbloodmanagement.de/en/pbm-bundles/>

## Commitment Timeline

2018: -Joining the World PBM Network by 10 US hospitals, 10 European hospitals and 150 German hospitals -Data transfer from 1 US hospital, 5 European hospitals and 20 hospitals in Germany

## Impact Details

---

### Lives Lost in Last Calendar Year

375000

### How many lives do you expect to spare from harm in the next calendar year?

37500

### How many lives do you expect to save in the next calendar year?

3750

### Methodology for Determining Lives Saved

Within the 13 recent largest trials (including our own trial with 129,000 patients) with more than 800,000 patients, Patient Blood Management saved 1,220 lives. Extrapolating these numbers to 324 million surgeries per year worldwide, Patient Blood Management has the potential to save 494,100 lives per year.