ETPOS

European Transfusion Practice and Outcome Study

A multi-central evaluation of standard of transfusion care and clinical outcome for elective surgical patients: a Prospective Observational International Multi-Center Study

PROTOCOL ID: ETPOS

Final Study protocol
Version 1.3

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<tr>
<td>Chief Investigator: PD</td>
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<td>Dr. Jens Meier, MD</td>
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<td>Tübingen</td>
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10-July-2013

### Sponsor

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<td>Trial Coordinator</td>
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<td>Brigitte Leva</td>
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<td>European Society of</td>
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<td>Anaesthesiology</td>
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<td>Principal Investigator</td>
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I. GENERAL INFORMATION

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**Sponsorship:**

The ETPOS study is entirely sponsored by a grant of the European Society of Anaesthesiology Clinical Trial Network (ESA CTN). The aim of the European Society of Anaesthesiology Clinical Trial Network is to provide an infrastructure for clinical research in the fields of Anaesthesia, Pain, Intensive Care and Emergency Medicine by transnational European collaborative studies.

No other institution or industrial company were or will be involved in financing, planning or conducting the study.

The Clinical Trial Network of the European Society of Anaesthesiology can be contacted via:

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1.2 Summary:

A number of studies have demonstrated a wide interhospital variation in transfusion practice in surgical patients as well as in the critically ill resulting in large amounts of allogeneic transfusions that are not needed or indicated. This might even be more true for the application of coagulation factors, fresh frozen plasmas (FFPs), platelets (PTs) and tranexamic acid: there is a large interpersonal, interhospital variation in daily clinical practice, not only regarding the therapeutic regime, but also regarding the indication for initiation of this regime.

The aim of the ETPOS study is to describe differences in transfusion habits throughout Europe and to correlate these habits to perioperative outcome parameters. Special focus is put on the number of packed red blood cells (PRBCs) transfused and the ratio of PRBCs to other blood products or coagulation factors in the operating room. Furthermore the motivation of physicians to transfuse PRBC and blood products in the operating room will be investigated.

ETPOS is a descriptive study; only descriptive statistical methods will be used for the primary endpoint. Data acquisition is scheduled for a time period of three months. During this time period it is planned to include a minimum of 10 000 patients throughout Europe, and to analyse different therapeutic regimes descriptively by different subgroup analyses.

Primary endpoint:
- Amount of PRBC and blood products and coagulation factors transfused

Secondary endpoints:
- Trigger for and factors determining transfusion of PRBC and blood products in different regions of Europe
- Postoperative mortality within 30 days
- Length of hospital stay
- Unplanned admission to the ICU
- Type and frequency of usage of blood conserving techniques
1.3 List of abbreviations:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>ANOVA</td>
<td>Analysis Of Variance</td>
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<tr>
<td>aPTT</td>
<td>Activated partial thromboplastin time</td>
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<td>ASA</td>
<td>American Society’s of Anesthesiologists</td>
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<tr>
<td>CRF</td>
<td>Case report form</td>
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<tr>
<td>E.C.</td>
<td>Ethics Committee</td>
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<tr>
<td>eCRF</td>
<td>Electronic case report form</td>
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<td>ETPOS</td>
<td>European Transfusion Practice and Outcome Study</td>
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<tr>
<td>FFP</td>
<td>Fresh frozen plasma</td>
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<tr>
<td>GCP</td>
<td>Good clinical practice</td>
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<tr>
<td>Hb</td>
<td>Hemoglobin (concentration)</td>
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<tr>
<td>ICF</td>
<td>Informed consent form</td>
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<tr>
<td>ICU</td>
<td>Intensive care unit</td>
</tr>
<tr>
<td>IEC</td>
<td>Institutional ethics committee</td>
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<tr>
<td>INR</td>
<td>Internationalized ratio</td>
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<tr>
<td>IRB</td>
<td>Institutional review board</td>
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<tr>
<td>Novo 7</td>
<td>Activated factor 7, Novo Nordisk</td>
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<tr>
<td>PIN</td>
<td>Patient identification number</td>
</tr>
<tr>
<td>POC</td>
<td>Point of care</td>
</tr>
<tr>
<td>PPSB</td>
<td>Prothrombin concentrate</td>
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<tr>
<td>PRBC</td>
<td>Packed red blood cells</td>
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<tr>
<td>PT</td>
<td>Platelets</td>
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<tr>
<td>pTT</td>
<td>Partial thromboplastin time</td>
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<tr>
<td>ROTEM</td>
<td>Rotational thrombelastography</td>
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<tr>
<td>TEG</td>
<td>Thrombelastography</td>
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<td>THP</td>
<td>Total hip replacement</td>
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II. INTRODUCTION AND BACKGROUND INFORMATION

2.1 Summary of findings from non clinical studies that potentially have clinical significance and from clinical trials that are relevant to the trial:

A number of studies have demonstrated a wide interhospital variation in transfusion practice in surgical patients as well as in the critically ill resulting in large amounts of allogeneic transfusions that are not needed or indicated [1] [2] [3] [4]. The reasons for this phenomenon might be manifold and could range from different patient populations, differences in perioperative blood loss, to an inappropriate usage of blood products. This does not only influence perioperative costs, but has also significant impact on perioperative outcome. In this context, it has been proven by several groups in different patient populations, that a restrictive transfusion regime is at least as good as, if not better than, a liberal transfusion regime [4] [5] [6] [7] [8] [9].

Percentage of patients receiving transfusions and percentage of blood loss in total hip replacement patients (THR) of individual study centers throughout Austria (adapted from Gombotz et al., Transfusion 2007[1].)

What is true for transfusion practice of PRBCs, might even be more true for the application of coagulation factors, fresh frozen plasmas (FFPs), platelets (PTs) and
tranexamic acid: there is a large interpersonal, interhospital variation in daily clinical practice, not only regarding the therapeutic regime, but also regarding the indication for initiation of this regime. It is especially unknown for non-trauma patients throughout Europe, what are average ratios of PRBCs to FFPs, or PTs in case of intraoperative bleeding [10]. Since it has been demonstrated in trauma patients recently, that low FFP:PRBC and PT:PRBC ratios are associated with an aggravation of outcome this might have significant clinical impact [11]. [12].

In fact, up to now, European data investigating the attitude of European physicians towards transfusion practice are lacking, and there are no clinical observational studies, that thoroughly describe transfusion practice throughout Europe, analyzing differences in the reasons why physicians give packed red blood cells (PRBCs) and coagulation factors or not. Furthermore only little is known about the effect of different transfusion policies on outcome. As is the case in other areas of medicine, the degree of variability in clinical practice represents a potential quality improvement opportunity. Initiation of a trial with the aim to describe differences in perioperative transfusion practice and correlation with patients’ outcome could influence daily clinical practice and result in optimized perioperative patient care.
2.2 Compliance of study with the protocol, GCP and the applicable regulatory requirement(s):
All participating centers of the trial represented by their principal investigators state that the trial will be conducted in compliance with the protocol. This study protocol complies with the declaration of Helsinki and will be conducted according to rules and guidelines of good clinical practice (GCP). Particular regulatory requirements of specific countries will be followed.

2.3 Study population:
All patients undergoing a non cardiothoracic, non emergency-trauma surgical procedure of participating hospital will be included, if they receive at least one PRBC. There are no further specific inclusion criteria. The only exclusion criteria will be age < 18 years and cardiothoracic and emergency trauma patients.
III. TRIAL OBJECTIVES AND PURPOSE

The aim of the ETPOS study is to describe differences in transfusion habits throughout Europe and to correlate these habits to perioperative outcome parameters. Special focus is put on the number of PRBCs transfused and the ratio of PRBCs to other blood products or coagulation factors in the operating room. Furthermore the motivation of physicians to transfuse PRBC and blood products in the operating room will be investigated.

In European patients undergoing elective non-cardiac surgery receiving at least one PRBC during their surgery it is proposed to:

1. Evaluate evidence of differences in the standard of perioperative transfusion care in different healthcare systems within Europe, and the use of blood conserving techniques.
   - Evaluate the ratio of transfusion of PRBC to blood products in the operating room
   - Evaluate which factors determine transfusion of PRBC (is it patient’s haemodynamics / haemoglobin threshold / pressure from the surgeon / acute brisk bleeding / else) and blood products (ratio to PRBC / POC monitoring / per protocol / else) in the operating room.

2. Evaluate whether there are factors in transfusion therapy that are associated with outcome (postoperative mortality within 30 days and unplanned admission to ICU).
IV. **STUDY DESIGN**

4.1 Primary endpoint and the secondary endpoints:

Primary endpoint:
- Amount of PRBC and blood products and coagulation factors transfused

Secondary endpoint:
- Factors determining transfusion of PRBC and blood products in different regions of Europe
- postoperative mortality within 30 days
- unplanned admission to the ICU
- type and frequency of usage of blood conserving techniques

4.2 Data collection

The following data will be collected for each patient:
- demographic data
- age, sex, weight, height, ASA classification
- duration of anaesthesia
- kind of surgery
- usage of point of care monitoring
- laboratory values at begin of surgery (Hb, INR, aPTT, platelets, fibrinogen)
- laboratory values just before transfusion of first PRBC (Hb, INR, aPTT, platelets, fibrinogen)
- reason for the transfusion of the first PRBC (Hb threshold, physiological transfusion triggers, transfusion relevant comorbidities, massive acute bleeding)
- volume administered until end of surgery (PRBC, crystalloids, colloids, cell saver, fresh frozen plasma, platelet concentrates, tranexamic acid, PCC, fibrinogen, rFactor VIIa, cryoprecipitate, factor XIII)
- estimated volume loss until end of surgery (blood loss, urine output, other fluids)
- laboratory values at the end of surgery (Hb, INR, aPTT, platelets, fibrinogen)
- ICU stay (duration, hours on ventilator until follow-up day (death or discharge, or Day 30))
- blood transfusions until follow up day (death or discharge or day 30)
- patient discharge until follow-up day (death, or discharge, or day 30)
- patient 30-day survival
At the end of the study period each center will provide an “end of study reporting form” (see appendices) containing the number of the surgical procedures performed during the study period and the total number of screening failure patients.

Furthermore each center will provide a screening failure tracking form at the end of the study period. Using this form it will be possible to analyze what are the reasons for exclusion from study (e.g. subject refused to sign infomed consent, subject is already participating in other clinical trial, subject language cognitive difficulties, etc.)

4.3 Type/design of trial:
ETPOS is a prospective, descriptive study and only includes objective data collected as part of routine care. As a consequence ETPOS has to be referred to as an observational trial, where no intervention takes place. Therefore this study is neither double-blind, nor placebo-controlled. Apart from standardized data acquisition no specific procedures are performed. An outline of the trial design is given in the protocol flow chart below.
4.4 Protocol Flowchart: schematic diagram of trial design, procedures and stages:

**General surgery**
- no cardiothoracic or emergency trauma surgery
- age ≥ 18 years

**Transfusion of 1 pRBC**

**Informed consent**
- Enrolment in ETPOS

**Data acquisition**
- during transfusion period in the operating room
- completion of CRF

**First part of eCRF**
- max. 30 days

**Survival**
- Data acquisition (max 30 days)
  - mortality within 30 days
  - ICU stay
  - hospital discharge

**Completion of eCRF**
4.5 Description of the measures taken to minimize/avoid bias

The ETPOS study is descriptive by nature and only includes objective data collected as part of routine care. Since all patients transfused with one PRBC will be included, significant selection bias can be ruled out. Given that it is the aim of the study to demonstrate differences in treatment throughout different centres no further methods against regional distinction bias in treatment are applied. Also, each national data coordinator will support each centre coordinator on request regarding recruitment of patients, completeness of data, follow up in the ward and admissions to ICU. Centre coordinators will be responsible for recruitment of patients and data integrity at their site.

As a consequence of the trial design randomization and blinding are not applicable.

4.6 Expected duration of subject participation and description of the sequence and duration of trial periods:

Each patient included into the ETPOS study will be followed up for 30 days maximum. Initial data acquisition will be initiated at the day of surgery and a second set of data regarding survival parameters, blood products administration and hospitalisation will be collected up to day of discharge (if patient is discharged before day 30) or up to day of death (if patient is dead before day 30) or on day 30 (if patient is still in hospital on day 30).

4.7 “Stopping rules” or “discontinuation criteria” for individual subjects, parts of trial and entire trial:

Apart from withdrawal of consent no specific “stopping rules” or “discontinuation criteria” exist.
V. SELECTION AND WITHDRAWAL OF SUBJECTS

5.1 Subject inclusion criteria:
Consecutive patients admitted to participating centres undergoing elective non cardiac surgery commencing during the three-month study period and who received at least one erythrocyte concentrate during their intra-operative stay.

5.2 Subject exclusion criteria:
age < 18 years, cardiothoracic surgery, emergency trauma patients.

5.3 Subject withdrawal criteria:
Apart from withdrawal of consent subjects will not be withdrawn from the trial.
In case of withdrawal of consent data collection will be stopped and CRF and eCRF of this patient will be abolished.
In case of withdrawal of consent subjects will not be replaced.
Subjects that have withdrawn consent will not be followed-up.
VI. Sample Size and Centres

ETPOS is a descriptive study; only descriptive statistical methods will be used for the primary endpoint. Data acquisition is scheduled for a time period of three months. During this time period it is planned to include a minimum of 10 000 patients throughout Europe, and to analyse different therapeutic regimes descriptively by different subgroup analyses. However for descriptive analysis of data a rigid lower threshold of patients included is not necessary.

Any European centre is welcome to participate in this project. In total the study will be open 9 months for patient recruitment. Each center is allowed to recruit patients during a successional three-month period within this 9-month time frame. Irrespective of this limitation initiation of the study can be chosen as appropriate at a specific centre.

Before inclusion of the first patient each institution will fill in a site pre-study questionnaire regarding type and size of the hospital as well as some parameters regarding local standard of care. The contents of this questionnaire is listed in the Appendix section.

In the 3-month period, data from a minimum of 100 patients receiving at least one unit of PRBC should be enrolled per centre. It is planned to recruit up to 150 centres throughout Europe. Each centre will have a local coordinator and a national coordinator will be in contact with the participating centres in his/her country to ensure all is clarified (to answer possible questions) and follow recruitment.

Furthermore local coordinators in individual institutions will have the following responsibilities:

- provide leadership for the study in their institution
- ensure all relevant regulatory approvals are in place for their institution
- ensure adequate training of all relevant staff prior to data collection
• supervise daily data collection and assist with problem solving
• act as a guarantor for the integrity and quality of data collected
• ensure timely completion of eCRFs
• communicate with the relevant national coordinator

VII. STATISTICS

7.1 Method:
The aim of the ETPOS study is to describe differences in transfusion habits throughout Europe and to correlate these habits to perioperative outcome parameters. Special focus is put on the number of PRBCs transfused and the ratio of PRBCs to other blood products or coagulation factors in the operating room. Furthermore the motivation of physicians to transfuse PRBC and blood products in the operating room will be investigated.

ETPOS is a descriptive study; only descriptive statistical methods will be used for the primary endpoint. Data acquisition is scheduled for a time period of nine months, with a time frame of three months for each individual center. During this time period it is planned to include a minimum of 10 000 patients throughout Europe, and to analyse different therapeutic regimes descriptively by different subgroup analyses.

Primary endpoint:
• Amount of PRBC and blood products and coagulation factors transfused

Secondary endpoints:
• Factors determining transfusion of PRBC and blood products in different regions of Europe
• postoperative mortality within 30 days
• unplanned admission to the ICU
• type and frequency of usage of blood conserving techniques

The data obtained by the site questionnaire will be described as mean and standard deviation if normally distributed or median and inter-quartile range if not normally
distributed. All categorical variables of the site questionnaire will be described as proportions.

The data to be collected during the actual patient study are all collected as part of routine clinical care. Categorical variables will be described as proportions and will be compared using chi-square or Fisher’s exact test. Continuous variable will be described as mean and standard deviation if normally distributed or median and inter-quartile range if not normally distributed. Comparisons of continuous variables will be performed using one-way ANOVA or Mann-Whitney test as appropriate. Uni-variate analysis will be performed to test factors associated with postoperative mortality within 30 days. A multiple logistic regression model will be used to identify independent risk factors. A stepwise approach will be used to enter new terms into the logistic regression model, where p<0.05 was set as the limit for inclusion of new terms. A logistic regression model will be performed to assess independent association between prognostic factors and outcomes. Results of logistic regression will be reported as adjusted odds ratio (OR) with 95 % confidence intervals. A single final analysis is planned at the end of the study.

Since the ETPOS study is a descriptive trial, and no changes of routine care are associated with the study no interim analysis is planned. Furthermore there are no criteria that are defined for premature termination of the trial.

If a sufficient number of patients can be included furthermore propensity score matching of a liberal vs. a restrictive transfusion regime will be performed. The criteria for a liberal and a restrictive transfusion regime will be defined during the trial.

7.2 Number of subjects planned to be enrolled:
It is planned to include a minimum of 10 000 patients throughout Europe, and to analyse different therapeutic regimes descriptively by different subgroup analyses.

For logistic regression of the secondary endpoints (postoperative mortality within 30 days) using several continuous, normally distributed independent variables, at 80%
power and a 0.05 significance level a sample size of 150 is necessary [13]. Given a sample size of a minimum of 10 000 patients the secondary endpoints are adequately powered even for subgroup analyses. If a sufficient number of patients can be included furthermore propensity score matching of a liberal vs. a restrictive transfusion regime will be performed.

7.3 The level of significance to be used:
A significance level of p<0.05 will be used for all statistical analyses.

7.4 Criteria for the termination of the trial:
Since no intervention will be performed there are no criteria for termination of the trial.

7.5 Procedure for accounting for missing, unused, and spurious data:
All patients will enter data analysis, regardless whether all data of the CRF has been surveyed. Unused and spurious data will be excluded from data analysis as soon as it is recognized.

7.6 The selection of subjects to be included in the analyses:
All subjects that are included in the study will be included in the data analyses.
VIII. Quality Assurance and Quality Control

The sponsor is responsible for implementing and maintaining quality assurance and quality control systems with written SOPs to ensure that trials are conducted and data are generated, documented (recorded), and reported in compliance with the protocol, GCP, and the applicable regulatory requirements.

The sponsor is responsible for securing agreement from all involved parties to ensure direct access to all trial related sites, source data/documents and reports for the purpose of monitoring and auditing by the sponsor, and inspection by domestic and foreign regulatory authorities.

Quality control should be applied to each stage of data handling to ensure that all data are reliable and have been processed correctly.

Agreements, made by the sponsor with the investigator / institution and any other parties involved with the clinical trial, should be in writing, as part of the protocol or in a separate agreement.

IX. Ethics Description of Ethical Considerations Relating to the Trial

The proposed study is an observational study. Therefore, no ethical concerns exist. All patients will receive routine care; no research related interventions will be introduced. Institutional approval will be required to each participating centre in order to get permission for collecting observational clinical information.

If applicable informed consent forms and any other written information to be provided to the subjects as well as advertisement for subject recruitment (if used) should be subject to IRB / IEC review and given approval / favourable opinion. If informed consent is not required by the local IRB, a waiver must be obtained from the Institutional Review Board.
X. DATA HANDLING AND RECORD KEEPING

Participating hospitals will be provided with data acquisition sheets that enable standardized screening of a patient receiving at least one PRBC. These data acquisition sheets will contain the patient’s name and hospital specific identification number. Initially these acquisition sheets are part of patient’s record and will not be used for any study-associated activities. Furthermore they are not anonymized at this time point. After informed consent has been obtained according to local regulations and the patient agrees to participate in the study these data acquisition sheets will be anonymised by cutting the part of the acquisition sheet containing personal information. The anonymised data acquisition sheet will then be used to fill in the electronic case report form (eCRF). The anonymised data acquisition form will thereafter be stored at the institution for quality control. It will not be possible to connect a anonymised data acquisition sheet to a specific patient.

All collected data will be entered by local investigators onto an internet based electronic CRF (OpenClinica). Access to the data-entry system is protected by a personalized username and password. Data is collected anonymized; the data will be coded by a patient identification number (PIN). No names are collected electronically or kept on the data acquisition form. Each centre will keep a confidential patient log sheet which matches each PIN to the individual patient stored behind a lock, together with the data acquisition form. Data will be handled confidentially and all data will be stored for the length of the study and for 15 years afterwards at the sponsor’s site, for further publication. Each centre will maintain an Investigator File including: protocol, IRB judgment, E.C. approval (if applicable), local translation of informed consent form (if applicable), etc. All handling of personal data will comply with the GCP – guidelines.
XI. Publication Policy

After submitting grant proposal, recruitment of patients, data acquisition, cleaning and analysis of the data obtained, authorship will be distributed according to differences in investment. Each participating centre including at least one patient can designate a collaborator that will be mentioned in the publication. Furthermore, each 25 patients included one more collaborator can be designated. These collaborators will be mentioned in the manuscript and will be trackable via Pubmed. Also, on request, centres will be allowed to their database and to make comparisons to other centres in their country. Proposals for secondary analyses can be submitted to the steering committee that will need to approve those analyses and that will revise all papers originating from final analysis prior to submission. Furthermore the sponsor of the study (ESA CTN) can use anonymised data for internal analyses and educational purposes.
XII. REFERENCES


XIII.  LIST OF SUPPLEMENTS/APPENDICES

1.  Template for Patient Documentation:
   1A.  Patient Information Sheet
   1B.  Patient Informed consent Form
   1C.  Authorized Patient Informed consent

2.  Case Report Form
3.  Site questionnaire
4.  End of study reporting form
5.  Screening failure tracking form
### XIV. PROTOCOL HISTORY OF CHANGES

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<th>Pages</th>
<th>Section</th>
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<td>Final protocol v1.1 Amendment 1 dated 15-Nov-2012 (Administrative change: Non-substantial Amendment)</td>
<td>1.</td>
<td>page 2/27</td>
<td>Signature Sheet</td>
<td>Added the Sponsor Signature</td>
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</table>
| | 2. | page 4/27 and 5/27 | I. GENERAL INFORMATION 1.1 STEERING COMMITTEE | - Changed Dr. Susan Mallett contact details from: Dr. Susan Mallett Royal Free Hospital Hampstead NHS Trust Department of Anaesthesiology Pond Street GB NW3 2QG London, United Kingdom Telephone: + 44 2 077 940 500 E-mail: susi.mallett@ntlworld.com into: Dr. Susan Mallett Royal Free London NHS Foundation Trust Pond Street NW3 2QG London, United Kingdom Telephone: +442077940500 Ext. 34454 Mobile: +447860704684 E-mail: susan.mallett@nhs.net 
- Changed Prof. Dr. Peter Martus email from: E-mail:peter.martus@uni-tuebingen.de into: E-mail: peter.martus@med.uni-tuebingen.de 
- Removed section of consultative Steering Committee member Dr. Klaus Görlinger |
| | 3. | page 22/27 | X. DATA HANDLING AND RECORD KEEPING | Typo correction: added a dot, moved the word 'log' and added 'sheet': Sentence v1.0: "Each centre will keep a confidential patient which matches each PIN to the individual patient log stored behind a lock, together with the data acquisition form Data will be handled confidentially and all data will be stored for the length of the study and for 15 years afterwards at the sponsor’s site, for further publication." Sentence v1.1: "Each centre will keep a confidential patient log sheet which matches each PIN to the individual patient stored behind a lock, together with the data acquisition form. Data will be handled confidentially and all data will be stored for the length of the study and for 15 years afterwards at the sponsor’s site, for further publication."
| | 4. | page 26/27 | XIV. PROTOCOL HISTORY OF CHANGES | Added Protocol History of changes section listing changes |
| Final protocol v1.2 Amendment 2 dated 08-May-2013 (Administrative change: Non-substantial Amendment) | 1. | page 17/27 | VI. Sample Size and Centres | Extension of the recruitment time frame from 6 to 9 months: 'Any European centre is welcome to participate in this project. In total the study will be open 9 months for patient recruitment. Each center is allowed to recruit patients during a successional three-month period within this 9-month time frame. Irrespective of this limitation initiation of the study can be chosen as appropriate at a specific centre.' 
'Data acquisition is scheduled for a time period of nine months, with a time frame of three months for each individual center.' |
| | | page 18/27 | VII. Statistics/7.1 Methods | |

ETPOS Protocol, version #1.3 Amendment 3 dated 10JULY 2013
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<td>3/27</td>
<td>• Changed Prof. Martus phone number from +49 351 458 4145 to +49 7071-2986829</td>
<td>• Clarification of the endpoint of data acquisition: v.1.2:</td>
<td>• Clarification of the endpoint of data acquisition in the flowchart: 30 days is changed into Max. 30 days and Day 30 is changed into (Max 30 days)</td>
<td>• Clarification of the endpoint of data collection: v.1.2 Each patient included into the ETPOS study will be followed up for 30 days and survival and hospitalisation will be checked at this time point. Initial data acquisition will be initiated at the day of surgery and a second set of data regarding survival parameters will be collected 30 days thereafter. v. 1.3: Each patient included into the ETPOS study will be followed up for 30 days maximum. Initial data acquisition will be initiated at the day of surgery and a second set of data regarding survival parameters, blood products administration and hospitalisation will be collected up to day of discharge (if patient is discharged before day 30) or up to day of death (if patient is dead before day 30) or on day 30 (if patient is still in hospital on day 30).</td>
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<td>• Changed Jens Meier Title from PD Dr. to PD Prof. Dr.</td>
<td>• ICU stay (duration, hours on ventilator until day 30))</td>
<td>• ICU stay (duration, hours on ventilator until follow-up day up (death or discharge, or day 30))</td>
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Appendix 1A

ETPOS: European Transfusion Practice and Outcome Study

Study information sheet for the patient:

Dear Sir or Madam:

You are invited to participate in a research study funded by the European Society of Anaesthesiology.

Before deciding whether or not to take part in this study, we would ask you to carefully read the following information which explains the study’s objective and the implications of your possible participation.

Study objective

The aim of the ETPOS study is to describe differences in transfusion practice throughout Europe and to correlate these with perioperative outcome parameters. Special focus is put on the number of packed red blood cells and coagulation factors that you might receive in case your clinical condition guides it.

Study description

Onset of participation in the study is the day when your operation takes place. At this day several parameters regarding your operation and the blood transfusions you received will be recorded. 30 days thereafter it will be recorded whether you are still hospitalized or whether you have been discharged. This study is about following information that already exists and does not involve any additional tests or drugs.

What does your participation involve?

Whether you decide or not to participate will not affect the medical care you are going to receive. If you decide not to take part in this study, it will not alter your treatment. The treating doctors will not modify their decisions, neither during your hospital stay nor after your discharge, because you have participated or not.

Withdrawal from the study

Even though you have agreed to participate, you may leave the study whenever you wish and, moreover, without having to offer any kind of explanation. You will not have to justify your decision.
Privacy and use of clinical information

In order to carry out the study it will be necessary to consult and make use of some of the information that appears in your medical record. Your acceptance will authorise us to consult and process the information in the following manner:

- Information will be stored in a computerised data base for all the participants.
- Once any clinical information has been obtained you will be only identified by a number. No data concerning personal identification will be revealed.

Results of the research study

The results obtained in the present study will be published in a major medical journal. In the article will be listed the participating centres and all investigators will have available a copy. Finally, we would like to draw your attention to the fact that this informative consent document refers only to your participation in the study. You will have to additionally authorise your surgical intervention which you have either already been informed about or will soon be given the appropriate information.

Any inquiries concerning the study should be addressed to:

Hospital researcher:
_______________________________________Telephone:_______

Field work coordinator:
_______________________________________Telephone:_______

If you have any questions related to your rights as a participant in the study you can get in touch with (Hospital Ethics Committee contact):
_______________________________________Telephone:_______

Thank you for taking time to read this information sheet

Date_______________________
Appendix 1B

ETPOS: European Transfusion Practice and Outcome Study

Participant’s Informed Consent

I, ...........................................................................(first and last names of participant)

➢ Have read the ‘ETPOS Study Information Sheet for the patient’.
➢ Have been able to ask questions concerning the study.
➢ Have received sufficient information with respect to the study.

I have spoken to .................................................. (name of researcher), and understand that my participation in the study will not affect any medical care that I should receive from the hospital.

I am aware that my participation is voluntary.

I realise that I can withdraw from the study:
➢ 1st. Whenever I wish.
➢ 2nd. Without having to give any explanations.
➢ 3rd. Without suffering any repercussions with respect to my medical attention.

I freely give my consent to participate in the study.

In ......................................................dated:............................

Signature of Participant  Signature of Researcher
Appendix 1C

ETPOS: European Transfusion Practice and Outcome Study

Authorised Informed Consent

(in the case the patient were unable to understand the information and consent)

With respect to the proposal that .......................................................... (first and last names of participant) participate in the previously mentioned study, I, .......................................................... (first and last names) as .................................................. (relationship with participant) declare that I

- Have read the information sheets provided.
- Have been able to ask questions concerning the study.
- Have received sufficient information with respect to the study.

I have also spoken to.......................................... (name of researcher), and I understand that participation in the study will not affect any medical care that the patient I am representing should receive.

I am aware that his/her participation is voluntary.

I realise that he/she can withdraw from the study:
- 1st. Whenever he/she wishes.
- 2nd. Without having to give any explanations.
- 3rd. Without suffering any repercussions with respect to his/her medical attention.

In my presence ..............................................(name of participant) has been given all the necessary information, appropriate to his/her level of understanding, and has agreed to participate.

I freely give my consent for ..........................................................(name of participant) to participate in this study.

In .......................................................... dated:............................

Signature of Authorised Party

Signature of Researcher

ETPOS Appendix 1C: Authorized Informed Consent Form Final version #1.0 dated 22 AUG 2012