



Impatto sul processo di produzione e utilizzo degli emocomponenti

Vincenzo De Angelis

Centro Nazionale Sangue – ISS

ROMA

Il sottoscritto, in qualità di Relatore
dichiara che

nell'esercizio della Sua funzione e per l'evento in oggetto, NON È in alcun modo portatore di interessi commerciali propri o di terzi; e che gli eventuali rapporti avuti negli ultimi due anni con soggetti portatori di interessi commerciali non sono tali da permettere a tali soggetti di influenzare le sue funzioni al fine di trarne vantaggio.



Gazzetta ufficiale
dell'Unione europea

IT
Serie L

2024/1938

17.7.2024

REGOLAMENTO (UE) 2024/1938 DEL PARLAMENTO EUROPEO E DEL CONSIGLIO

del 13 giugno 2024

sui parametri di qualità e sicurezza per le sostanze di origine umana destinate all'applicazione sugli esseri umani e che abroga le direttive 2002/98/CE e 2004/23/CE

Supporting **high safety and quality standards** based on up-to-date technical rules for substances of human origin (SoHO)

Extending the safety and quality framework to **other donated SoHO** such as breast milk

Implementing **digital-ready policies**

WHY THIS ~~PROPOSAL?~~ REGULATION

Extending **protective measures** to donors and to offspring born from medically assisted reproduction

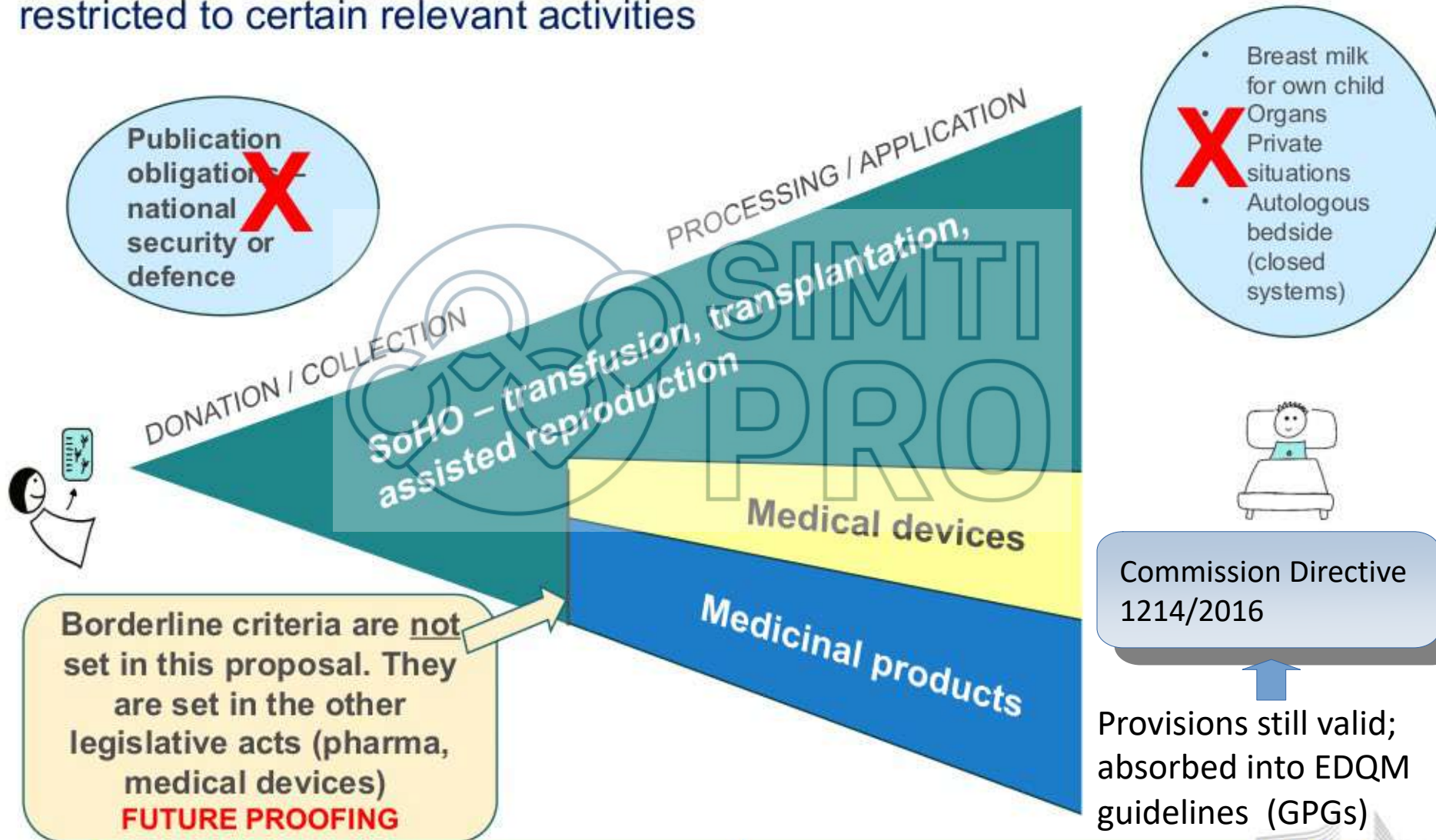
Improving **harmonisation** across Member States, facilitating cross-border exchange of SoHO and **improving patient access** to the therapies they need

Creating conditions for **safe, effective and accessible innovation**

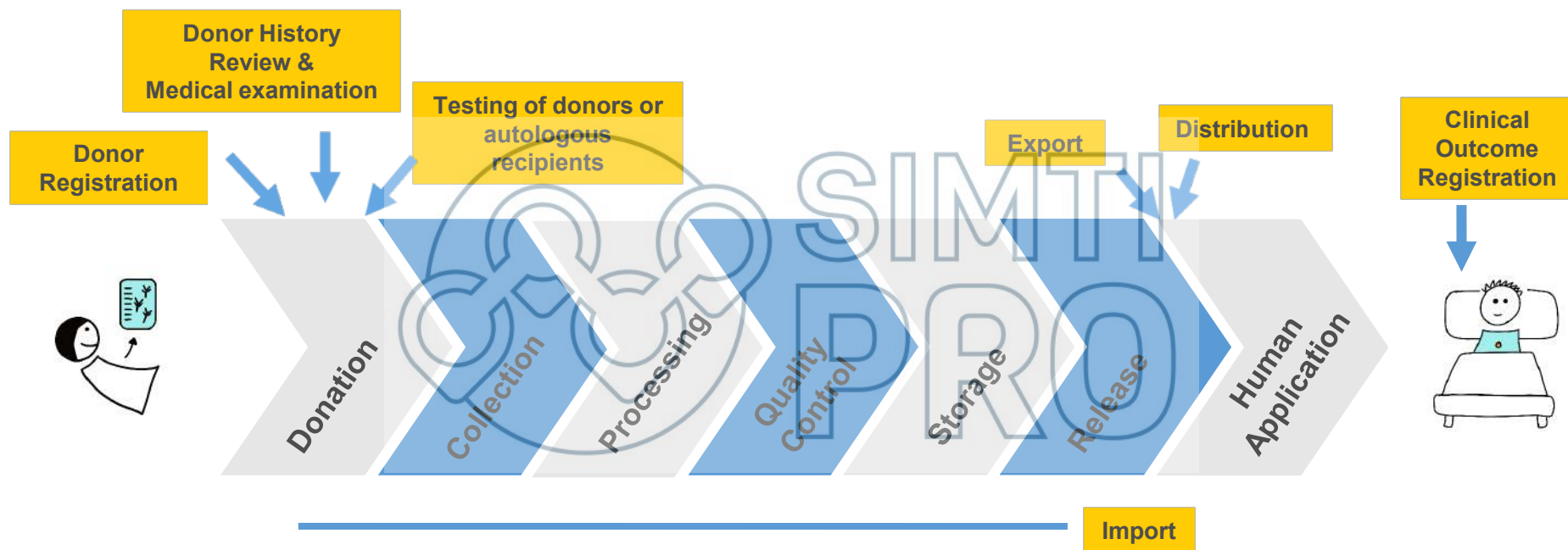
Improving **crisis preparedness** to safeguard access to therapies

With the permission of DG-SANTE SoHO team

Scope: Regulation covers all steps for all SoHO (some limited provisions for autologous SoHO), unless processing or application steps fall under scope of other EU frameworks (art 2.3) – then SoHO regulation is restricted to certain relevant activities



COMPETENT AUTHORITY (CA) OBLIGATIONS



Supervision of all SoHO Activities that directly impact safety, quality or **effectiveness**

NEW REGULATION

- Scope and advice
- SoHO activities, entities and establishments
- SoHO Preparations and their authorisation
- Standards and hierarchy of technical guidelines
- Donor Protection and Voluntary Unpaid Donation
- Recipient and offspring protection
- Vigilance
- Supply continuity
- Digitalisation – the SoHO platform

Approccio risk-based e strumenti di risk assessment in ambito autorizzativo

Articolo 8

Responsabilità e obblighi generali delle autorità competenti per le SoHO

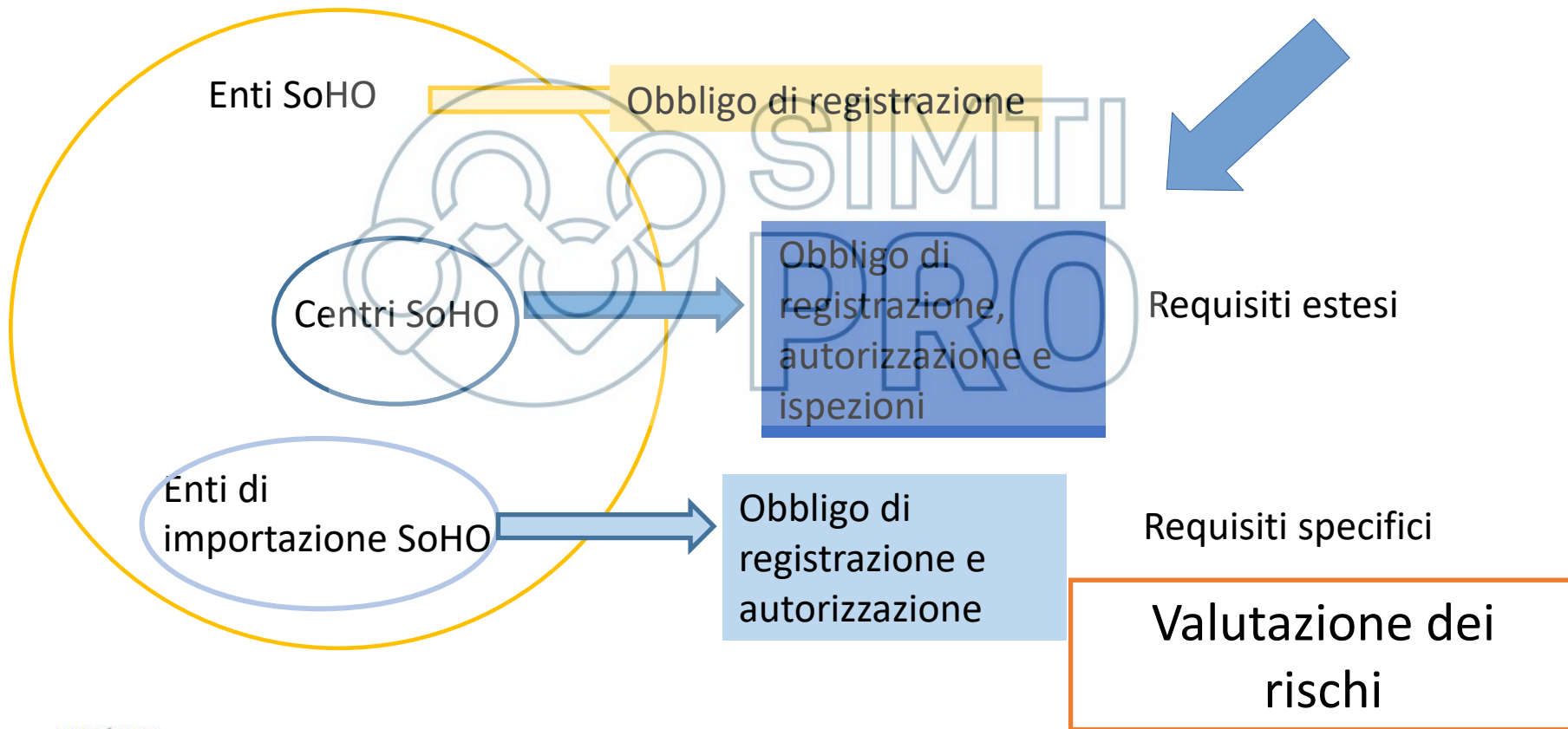
1. Le autorità competenti per le SoHO sono responsabili, all'interno del loro territorio, delle attività di sorveglianza sulle SoHO al fine di verificare l'effettiva conformità:
- a) degli enti SoHO ai requisiti stabiliti nel presente regolamento; e → **Enti SoHO = enti + centri SoHO**
 - b) delle preparazioni di SoHO alla corrispondente autorizzazione.

a) Autorizzazione/accreditamento/misure di controllo (attività ispettiva)

a) Autorizzazione delle preparazioni SoHO

Approccio risk-based e strumenti di risk assessment in ambito autorizzativo

Enti SoHO e Centri SoHO



Articolo 16

Registro degli enti SoHO

zioneale dei Servizi Trasfusionali

Roma, 19-21 marzo 2025

Quality Risk Management Tool: Intrinsic risk

➤ Two factors

- Complexity of the site, processes and products.
- Criticality of the products, services, etc.

A total score of 1 or 2 represents a **Low** Intrinsic Risk

A total score of 3 or 4 represents a **Medium** Intrinsic Risk

A total score of 6 or 9 represents a **High** Intrinsic Risk

		Criticality		
Complexity		1	2	3
	1	1 (Low)	2 (Low)	3 (Medium)
	2	2 (Low)	4 (Medium)	6 (High)
	3	3 (Medium)	6 (High)	9 (High)

Sistema di autorizzazione di preparazioni di SoHO

1. Le autorità competenti per le SoHO istituiscono e mantengono un sistema per concedere l'autorizzazione di preparazioni di SoHO agli enti SoHO presenti sul loro territorio. Tale sistema comprende la ricezione e l'elaborazione delle domande e l'approvazione dei piani di monitoraggio degli esiti clinici al fine di generare le prove richieste per l'autorizzazione, ove necessario, e consente la sospensione o la revoca delle autorizzazioni.

A particular SoHO that has been **subjected to processing**, and where relevant other SoHO activities, **has a specific clinical indication and is intended for application to a recipient or for distribution.**

Must be authorised



new

SANGUE



Sistema di autorizzazione di preparazioni di SoHO

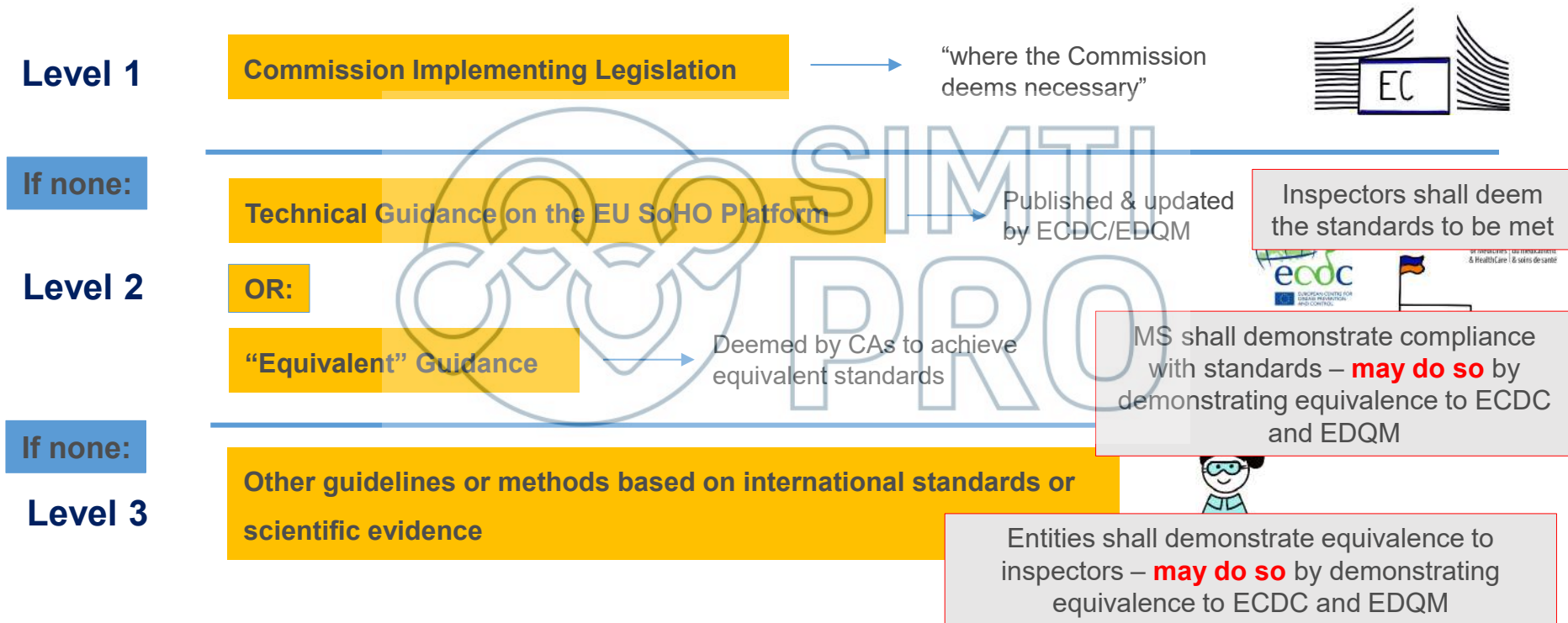


Il Regolamento richiama le autorità competenti a tenere conto **delle migliori prassi pertinenti.**

Le autorità competenti per le SoHO possono utilizzare il canale di comunicazione sicuro sulla piattaforma UE per le SoHO per scambiare, con il centro SoHO, documenti relativi alla domanda di autorizzazione.

HIGH LEVEL STANDARDS THROUGH TECHNICAL GUIDELINES

SoHO entities shall follow the highest available levels of standards (Art. 56 & 59):



– staying up-to-date with the science in an agile way –

Guide to the preparation, use and quality assurance of **BLOOD COMPONENTS**



European Committee
(Partial Agreement)
on Blood Transfusion
(CD-P-TS)

EDQM
21st Edition
2023

edqm
European Directorate
for the Quality
of Medicines
& Healthcare

COUNCIL OF EUROPE

CONSEIL DE L'EUROPE

❖ CHAPTER 5 Principles of blood component MONOGRAPHS

1. Definition and properties
2. Preparation
3. Requirements and quality control
4. Storage and transport
5. Labelling
6. Warnings

SIMUL
PRO

Guide to the
preparation, use and
quality assurance of
**BLOOD
COMPONENTS**



European Committee
(Partial Agreement)
on Blood Transfusion
(CD-P-TS)

EDQM
21st Edition
2023



Manuale applicativo delle
“Good practice guidelines” (GPGs)
per i Servizi Trasfusionali, richieste per la
conformità con la Direttiva Europea 2005/62/CE
(messe in forza dalla Direttiva Europea 2016/1214)

Guide to the preparation, use and quality assurance of **BLOOD COMPONENTS**



European Committee
(Partial Agreement)
on Blood Transfusion
(CD-P-TS)

EDQM
21st Edition
2023

edqm
European Directorate
for the Quality
of Medicines
& Healthcare

COUNCIL OF EUROPE

CONSEIL DE L'EUROPE

Blood component monographs

Part A. Whole Blood components

A-1. Whole Blood	215
A-2. Whole Blood, Leucocyte-Depleted	218

Part B. Red cell components

B-1. Red Cells, Leucocyte-Depleted	222
B-2. Red Cells, Leucocyte-Depleted in Additive Solution	223
B-3. Red Cells, Non-Leucodepleted	224
B-4. Red Cells, Non-Leucodepleted, Buffy Coat Removed	225
B-5. Red Cells, Non-Leucodepleted, in Additive Solution	227
B-6. Red Cells, Non-Leucodepleted, Buffy Coat Removed, in Additive Solution	228
B-7. Red Cells, Apheresis	229
B-8. Red Cells, Washed	231
B-9. Red Cells, Cryopreserved	232

Guide to the preparation, use and quality assurance of **BLOOD COMPONENTS**



European Committee
(Partial Agreement)
on Blood Transfusion
(CD-P-TS)

EDQM
21st Edition
2023



Blood component monographs

Part C. Platelet components

C-1. Platelets, Recovered, Single Unit, in Plasma	239
C-2. Platelets, Recovered, Pooled, in Plasma	243
C-3. Platelets, Recovered, Pooled, Leucocyte-Depleted, in Plasma	245
C-4. Platelets, Recovered, Pooled, in Additive Solution	247
C-5. Platelets, Recovered, Pooled, Leucocyte-Depleted, in Additive Solution	249
C-6. Platelets, Recovered, Pooled, Leucocyte-Depleted, Pathogen-Reduced	251
C-7. Platelets, Apheresis	254
C-8. Platelets, Apherests, Leucocyte-Depleted	255
C-9. Platelets, Apheresis, in Additive Solution	257
C-10. Platelets, Apheresis, Leucocyte-Depleted, in Additive Solution	258
C-11. Platelets, Apheresis, Leucocyte-Depleted, Pathogen-Reduced	260
C-12. Platelets, washed	262
C-13. Platelets, Cryopreserved	263

Guide to the preparation, use and quality assurance of **BLOOD COMPONENTS**



European Committee
(Partial Agreement)
on Blood Transfusion
(CD-P-TS)

EDQM
21st Edition
2023



Blood component monographs

Part D. Plasma components

D-1. Plasma, Fresh Frozen	268
D-2. Plasma, Fresh Frozen, Pathogen-Reduced	273
D-3. Cryoprecipitate	275
D-4. Cryoprecipitate, Pathogen-Reduced	277
D-5. Plasma, Fresh Frozen, Cryoprecipitate-Depleted	280

Part E. White cell components

E-1. Granulocytes, Apheresis	283
E-2. Granulocytes, Pooled	286

Indicazioni terapeutiche sull'utilizzo degli emocomponenti per uso non trasfusionale

Terza edizione
Giugno 2024

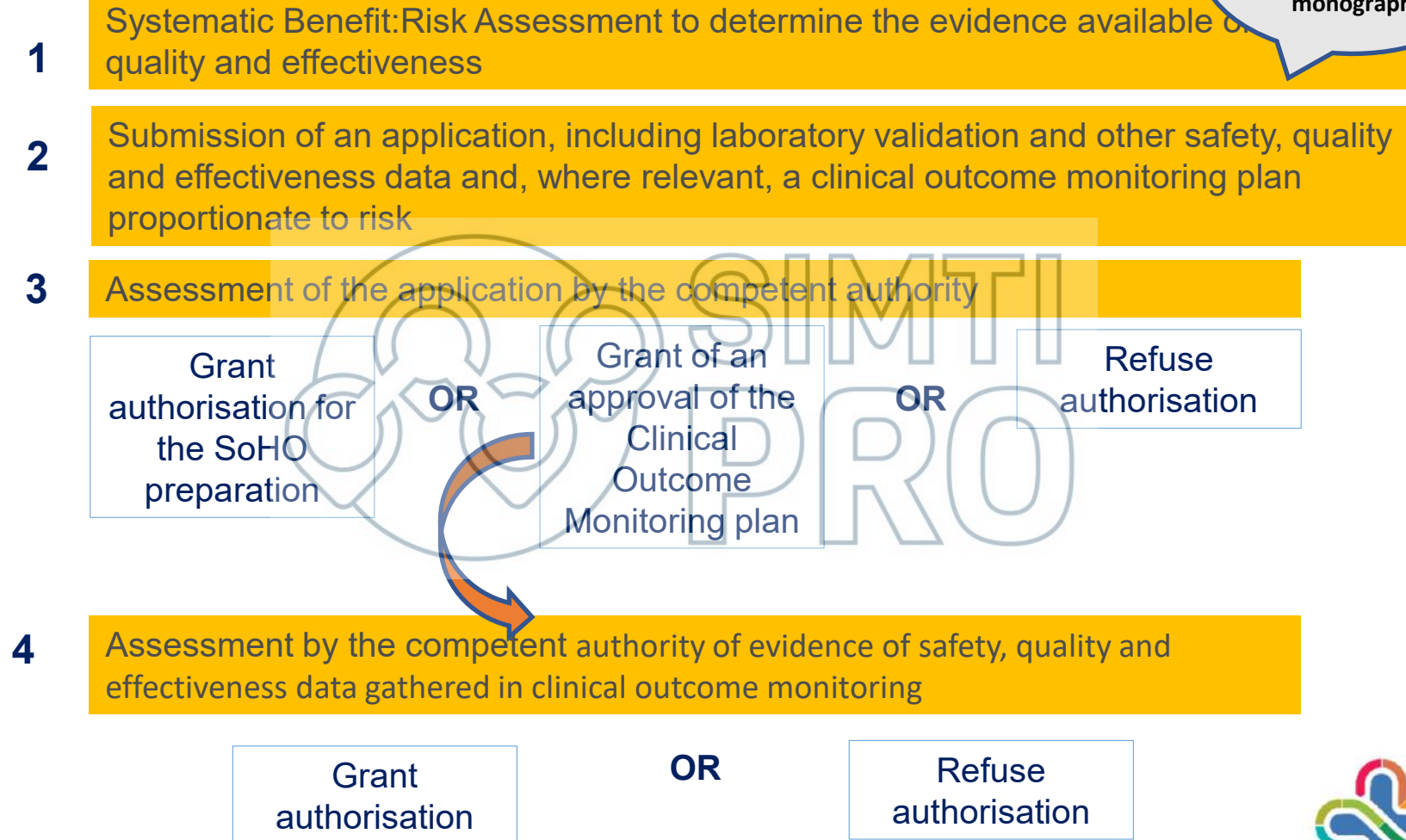
APPENDICE 2 - SCHEDE TECNICHE DI PRODOTTO

NOMENCLATURA IN LETTERATURA

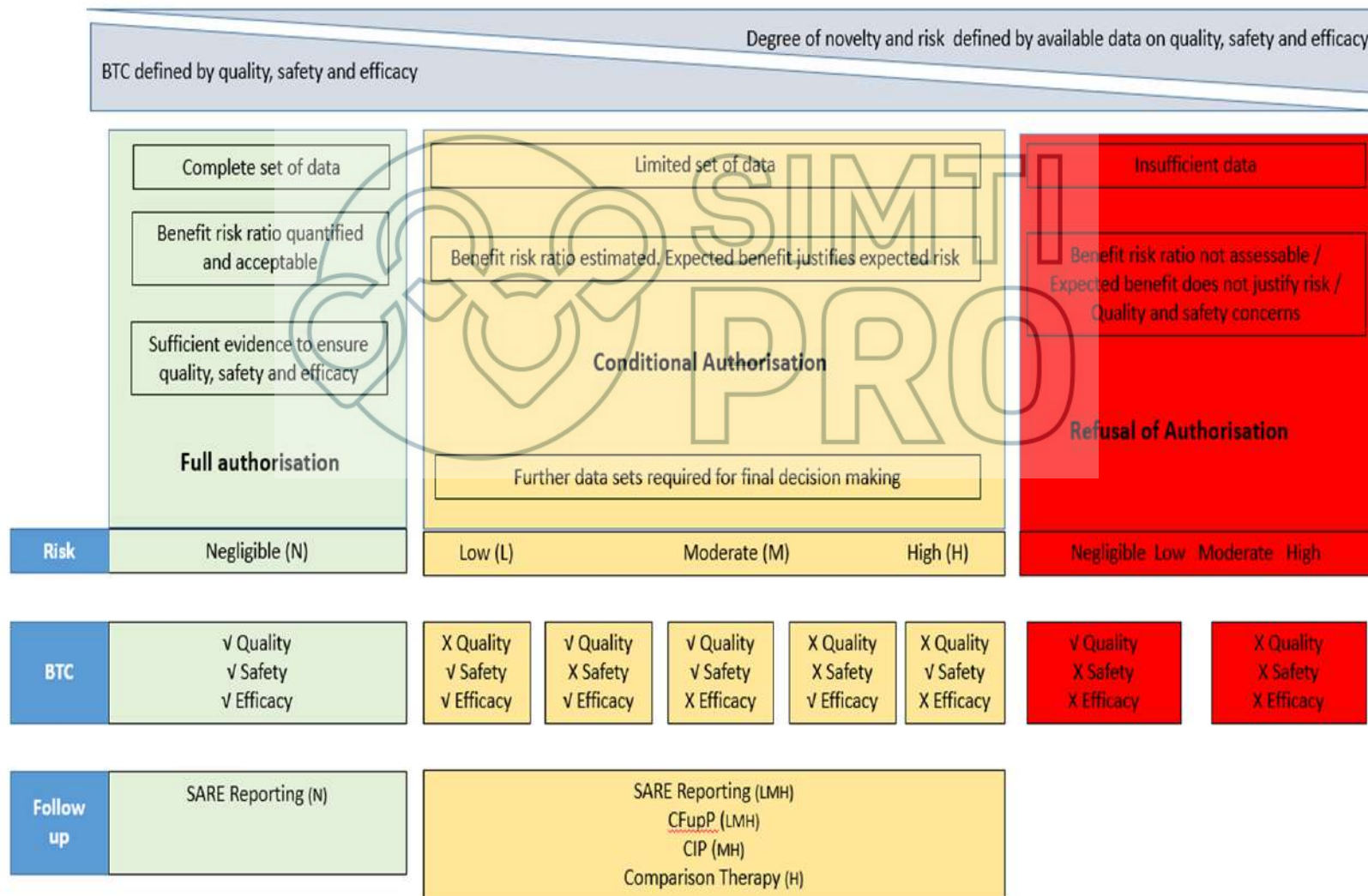
CB-PG: Gel Piastrinico da Sangue Cordonale (cord blood)
CB-PRP: Plasma Ricco di Piastrine da Sangue Cordonale (cord blood)
LP-PRP: Plasma Ricco di Piastrine Povero di Leucociti
LR-PRP: Plasma Ricco di Piastrine Ricco di Leucociti
PC: Concentrato Piastrinico
PG: Gel Piastrinico (platelet gel)
PL: Lisato Piastrinico
PLT: Piastrine
PRF: Fibrina arricchita di Piastrine
PRP: Plasma Ricco di Piastrine
PRP gel: Plasma Ricco di Piastrine coagulato dopo Attivazione

PREPARATION PROCESS AUTHORISATION

Taking into account any relevant EDQM monograph



Risk/benefit balance



CLINICAL OUTCOME MONITORING PLAN



Positive **expected** benefit/risk

Risk-based approach

+

comparison
to standard
therapy

+

clinical investigation study with
appropriate number of patients
and pre-defined clinical endpoints

Clinical follow-up of a defined number of patients is required

No clinical
outcome
monitoring
required

**Negligible
Risk**

**Low
Risk**

**Moderate
Risk**

**High
Risk**

OR

Sufficient evidence of
positive benefit:risk

Evidence of
ethics
committee
approval

**Studies registered on SoHO
Platform prior to commencement**

Risk assessment tool: EUROGTP II

The **Euro GTP II** Methodologies and Interactive Assessment Tool (IAT) have been developed to assist professionals involved in the provision of BTC to:

- Determine if a BTC or preparation process has any novelty (Step 1)
- Assess the risks associated with the BTC or preparation process (Step 2)
- Determine the extent of any studies and/or follow up required to assure the safety and efficacy of BTC (Step 3)

Details available on the website:

<https://tool.goodtissuepractices.site/>

Unexpected immunogenicity
Implant failure/Engraftment failure/
Pregnancy loss
Disease transmission
Toxicity / Carcinogenicity
Other potential risks (can be
associated with specific TCP/therapy)



**EURO
GTP II**

Good Tissue
& cell Practices



Donor Profile / Donation



Procurement



Processing/ storing /transport



Products



Implantation procedures

Adopted by EDQM for guidelines
implementation

<https://soho-guides.edqm.eu/home/>



**EURO
GTP II**

Good Tissue
& cell Practices



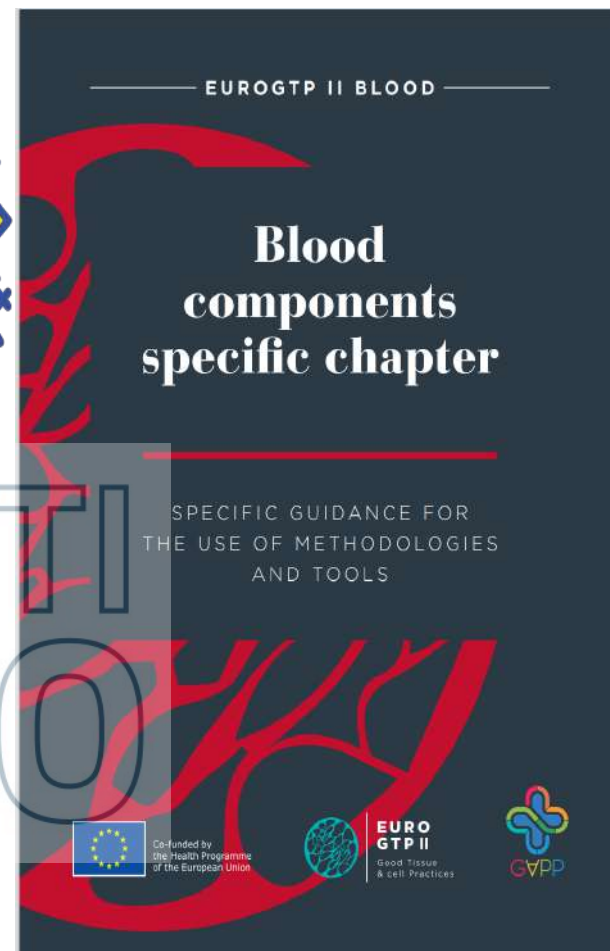
Co-funded by
the Health Programme
of the European Union



- Guide
- Interactive Assessment Tool
- Training

EuroGTPII@bst.cat

<http://www.goodtissuepractices.eu/>



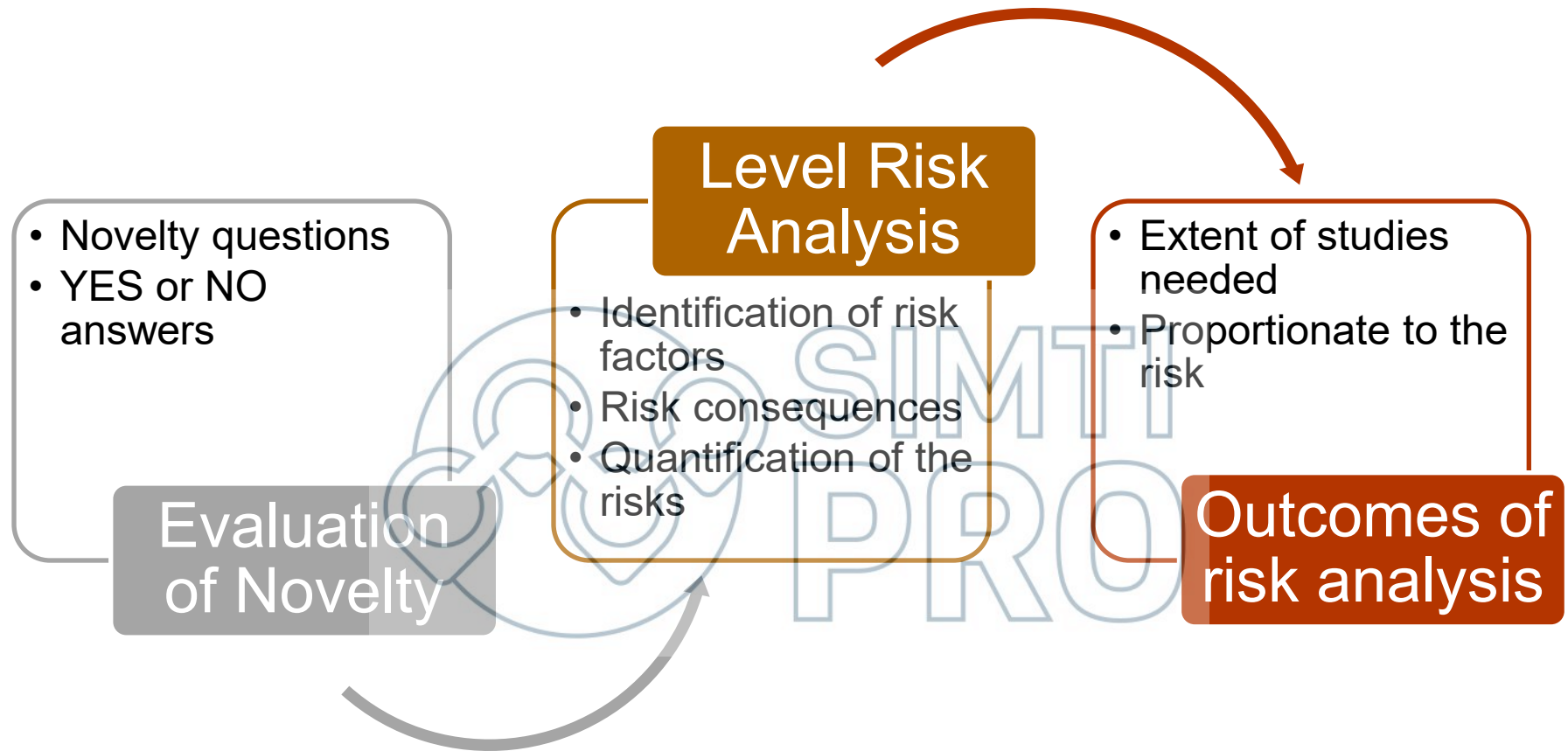
http://goodtissuepractices.eu/images/docs/EuroGTPII_Blood_INT.pdf

8[^]

Conferenza Nazionale dei Servizi Trasfusionali

Roma, 19-21 marzo 2025

EUROGTP II TOOL – BLOOD: metodologia



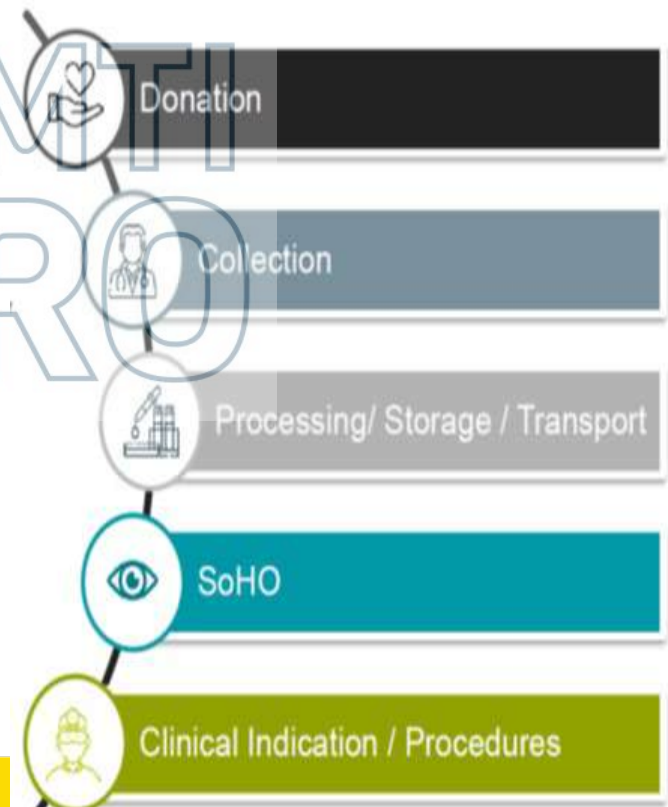
NOVELTY QUESTIONS: step 1

	YES	NO	NA
A. Has this type of BTC* previously been collected, processed/prepared and issued for clinical use by your establishment?			
B. Will the starting material used to prepare this BTC be obtained from the same donor population previously used by your establishment for this type of BTC*?			
C. Will the starting material for this BTC be procured/collected using a procedure used previously by your establishment for this type of BTC*?			
D. Will this BTC be prepared by a procedure (processing/preparation, decontamination/pathogen reduction and preservation) used previously in your establishment for this type of BTC*?			
E. Will this BTC be packaged, stored and distributed using a protocol and materials used previously in your establishment for this type of BTC*?			
F. Will this type of BTC* provided by your establishment be applied/infused clinically using an application/transfusion/infusion method used previously?			
G. Has your establishment provided this type of BTC* for the same clinical indication or for application/transfusion/infusion into a same anatomical site?			

LEVEL RISK ANALYSIS – step 2a

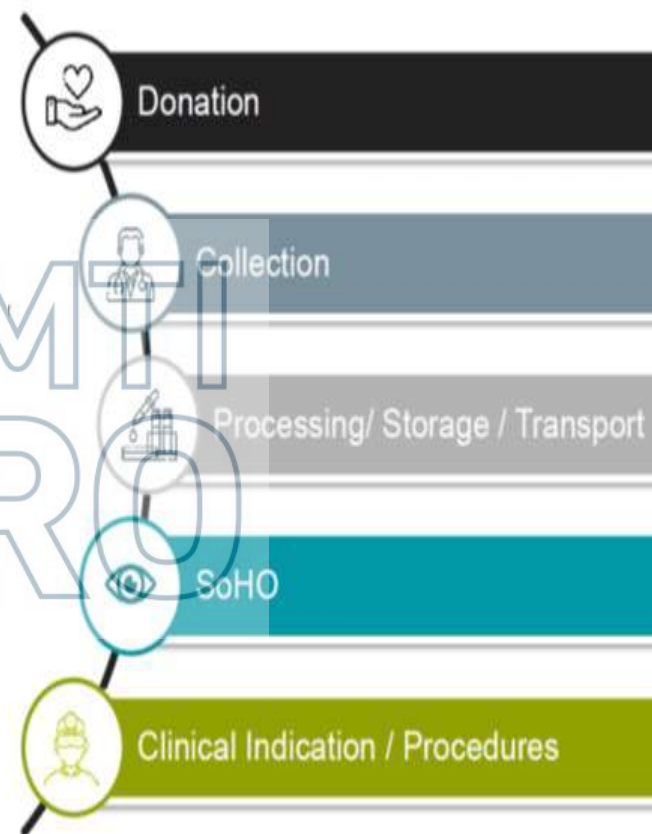
Identification of risk factors

- i) Donor Characteristics
- ii) Collection process and environment
- iii) Processing and environment
- iv) Reagents/Added components
- v) Reliability of Testing
- vi) Storage Conditions
- vii) Transport Conditions
- viii) Presence of unwanted residues
- ix) Clinical indications



LEVEL RISK CONSEQUENCES – step 2b

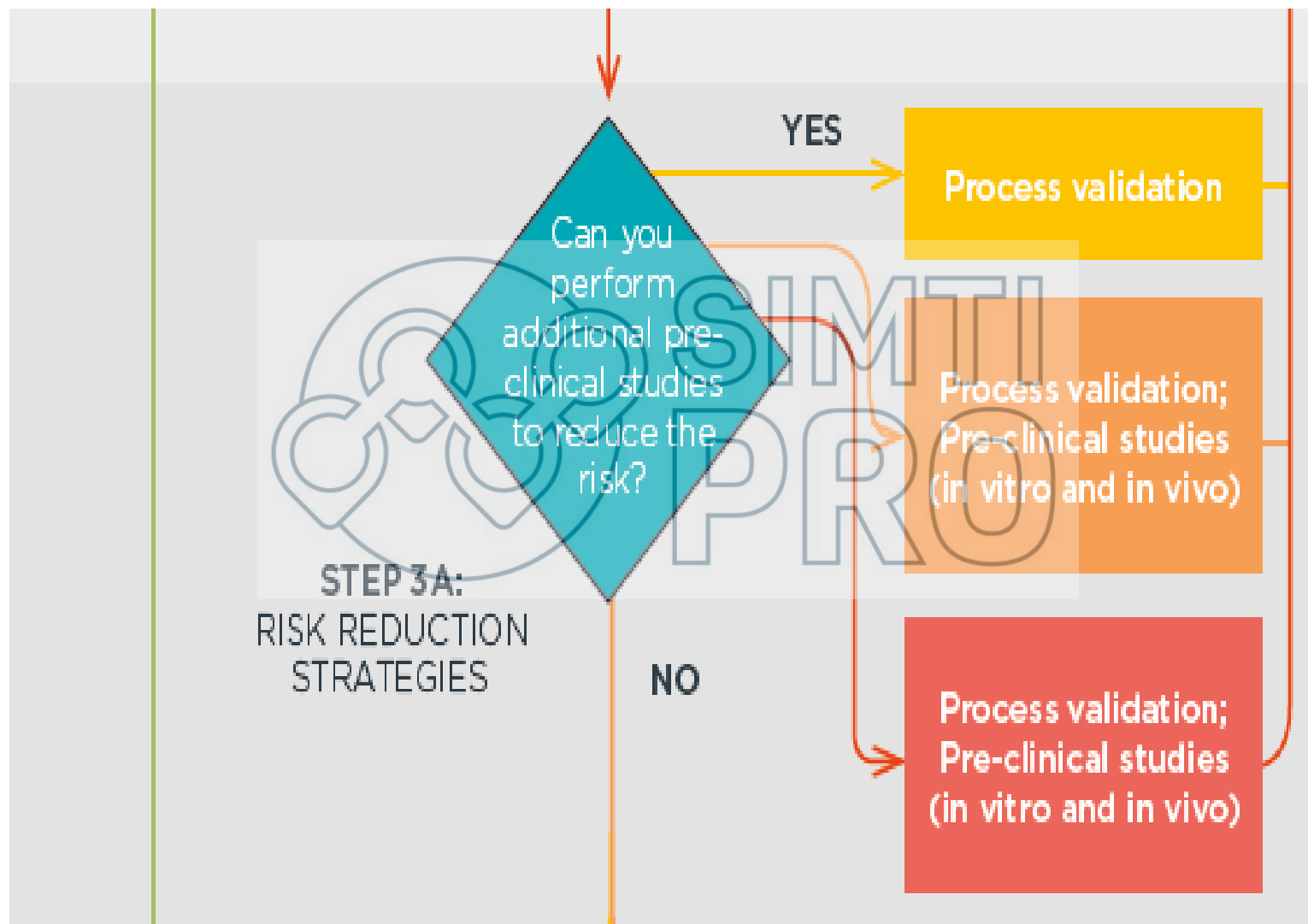
- i) Unexpected immunogenicity
- ii) Failure to perform clinically
- iii) Disease transmission
- iv) Toxicity/Carcinogenicity
- v) Other



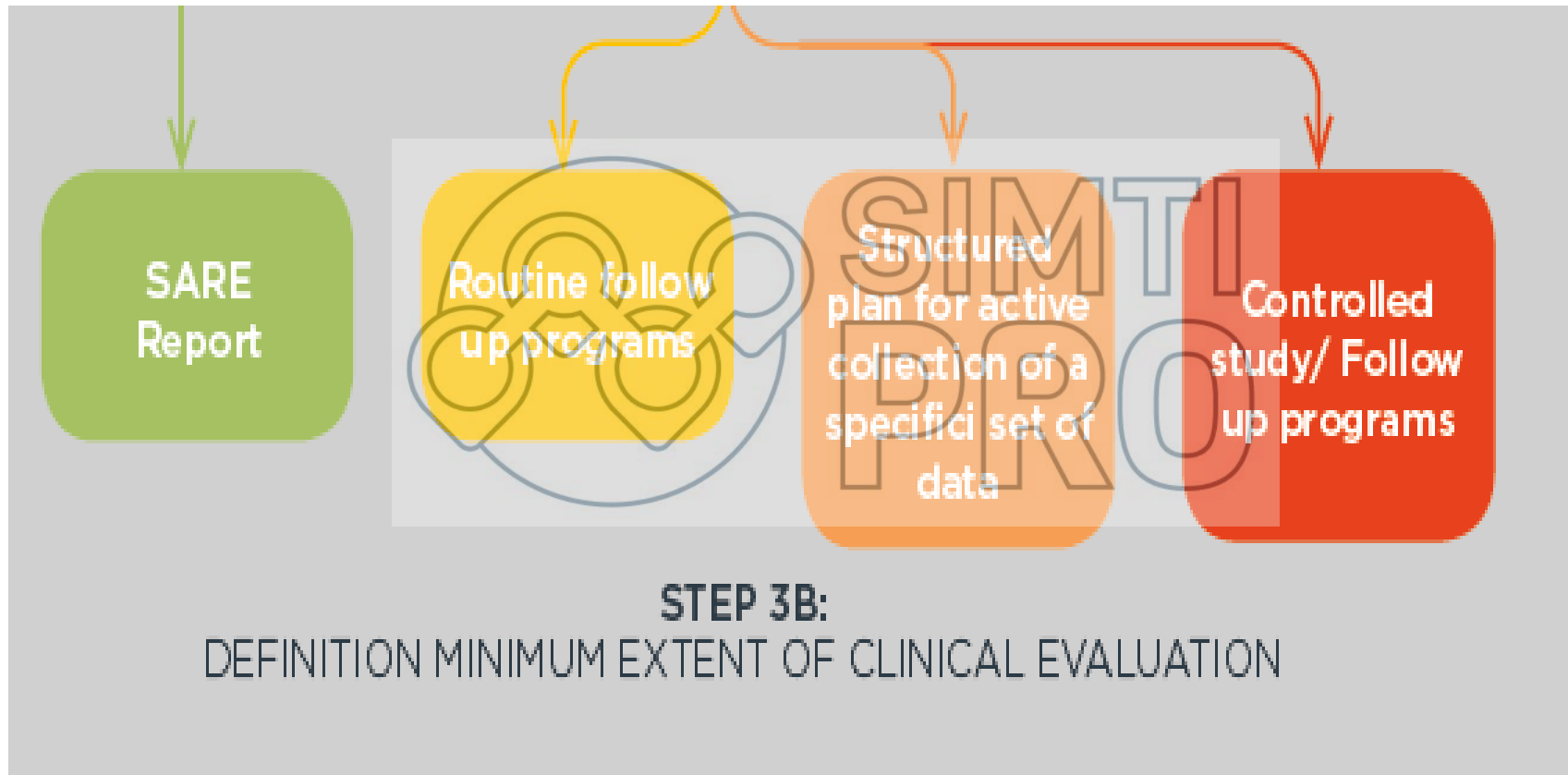
LEVEL RISK SCORING – step 3

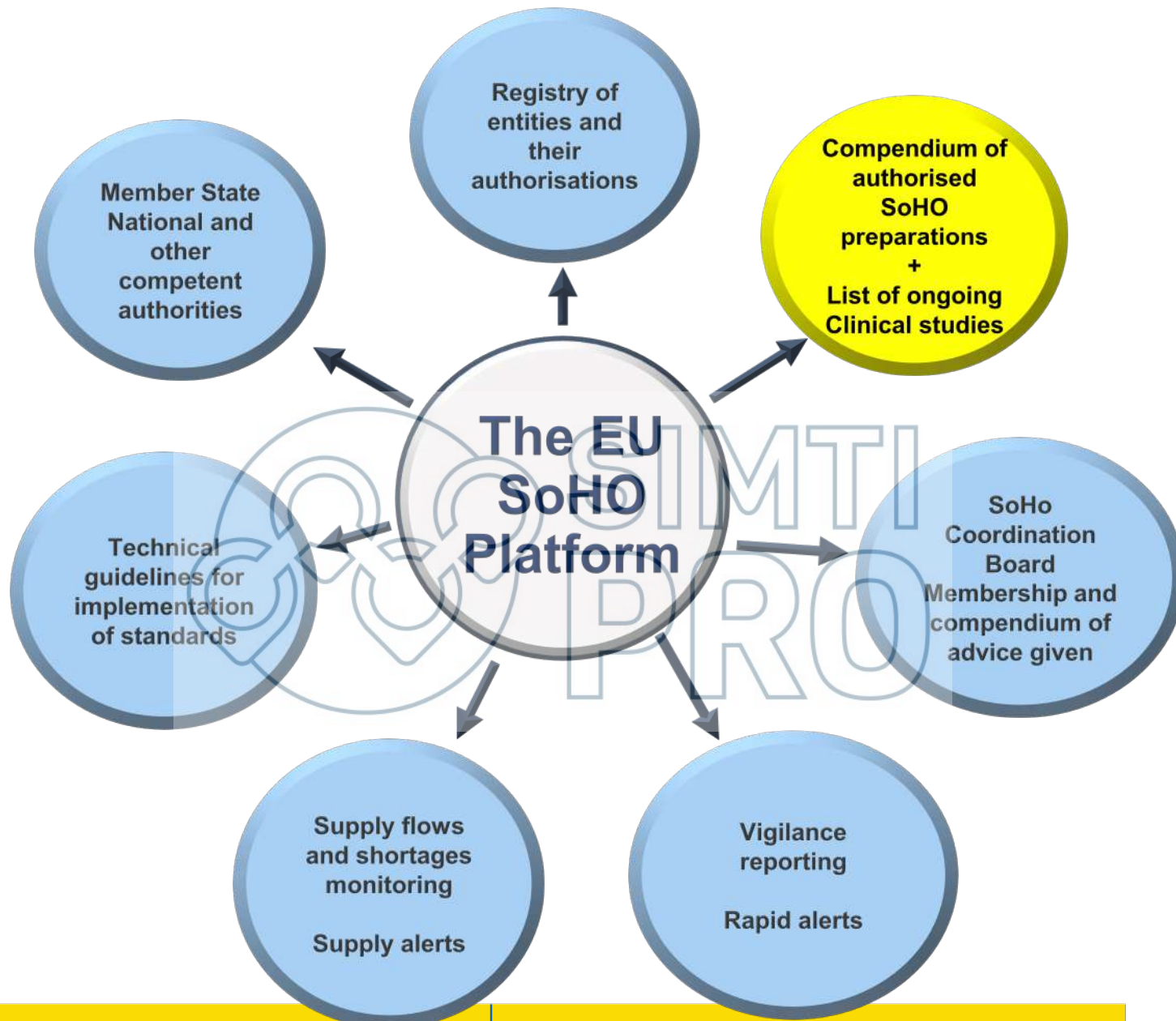
LEVEL OF PROBABILITY	LEVEL OF SEVERITY	LEVEL OF DETECTABILITY	PERCENTAGE RISK REDUCTION	
1 - Rare	1- Non-serious	1 - Very high	0	None
2 - Unlikely	2- Serious	2 - Moderately high	25	Limited
3 - Possible	3- Life-threatening	3- Low	50	Moderate
4 - Likely	4 - Fatal	4 - Very low	75	Substantial
5 - Almost certain		5 - Cannot be detected	95	Extensive

LEVEL RISK REDUCTION – step 3a



LEVEL EXTENT CLINICAL EVALUATION – step 3b





AUTORITÀ COMPETENTI PER LE SOHO DEGLI STATI MEMBRI

Articolo 5

Designazione delle autorità competenti per le SoHO

1. Gli Stati membri designano l'autorità o le autorità competenti per le SoHO cui affidano la responsabilità delle attività di sorveglianza sulle SoHO. L'autorità o le autorità competenti per le SoHO designate sono indipendenti da qualsiasi ente SoHO.

Articolo 6

Indipendenza e imparzialità

Articolo 7

Trasparenza

Regioni/PPAA**CNS**

Sufficienti
risorse
umane e
finanziarie

Capacità
operativa e
competenza
anche tecnica

Organizzazione
– SGQ – piani
di continuità

Capacità di
offerta
formativa
interna e
esterna

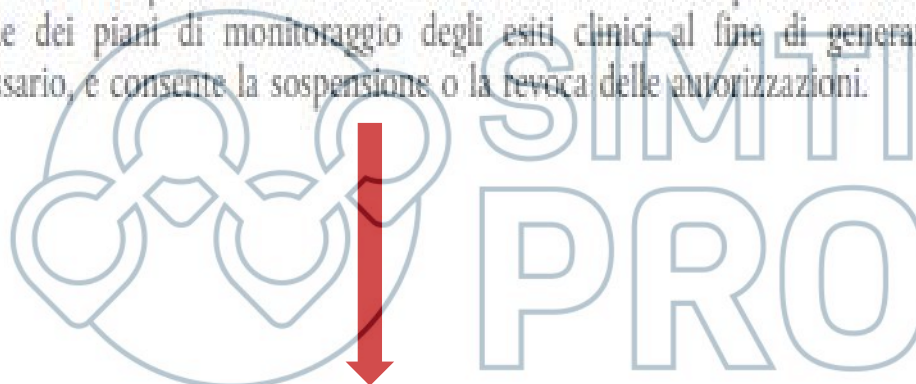


VALUTAZIONE DI IMPATTO

Articolo 18

Sistema di autorizzazione di preparazioni di SoHO

1. Le autorità competenti per le SoHO istituiscono e mantengono un sistema per concedere l'autorizzazione di preparazioni di SoHO agli enti SoHO presenti sul loro territorio. Tale sistema comprende la ricezione e l'elaborazione delle domande e l'approvazione dei piani di monitoraggio degli esiti clinici al fine di generare le prove richieste per l'autorizzazione, ove necessario, e consente la sospensione o la revoca delle autorizzazioni.



Autorizzazione delle preparazioni SoHO:

- Impatto organizzativo (procedure)
- Risorse
- Competenza tecnica/clinica

***SOCIETÀ
SCIENTIFICHE !***

Grazie per l'attenzione!

