



Patient Blood Management Where to start?



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The Public Health Programme of the EC
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International Haemovigilance Network

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TÜRK KIZILAY



1st International Congress on Safety & Haemovigilance
2 – 6 Kasim 2019
Antalya - TURKEY



No disclosures



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Overview

UK Transfusion Services

What is Patient Blood Management (PBM)

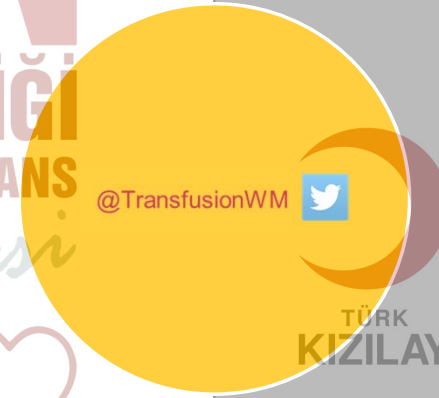
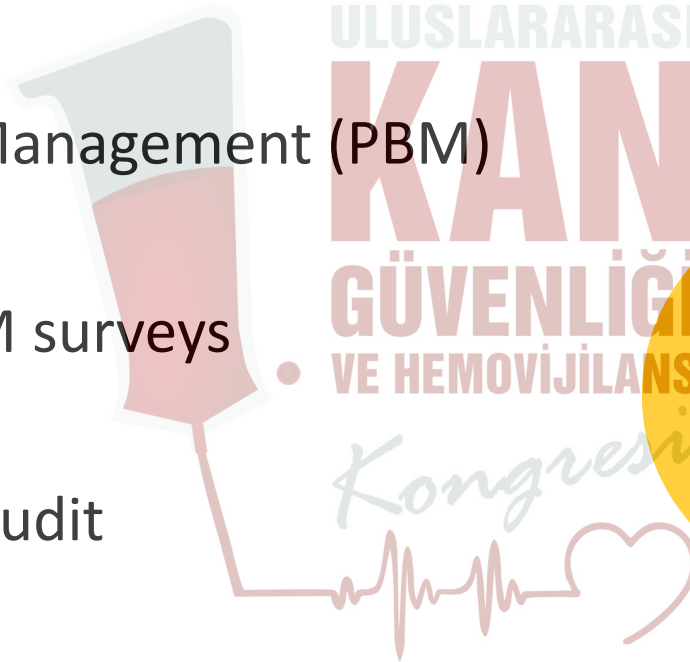
Why did we start PBM

Key messages from PBM surveys

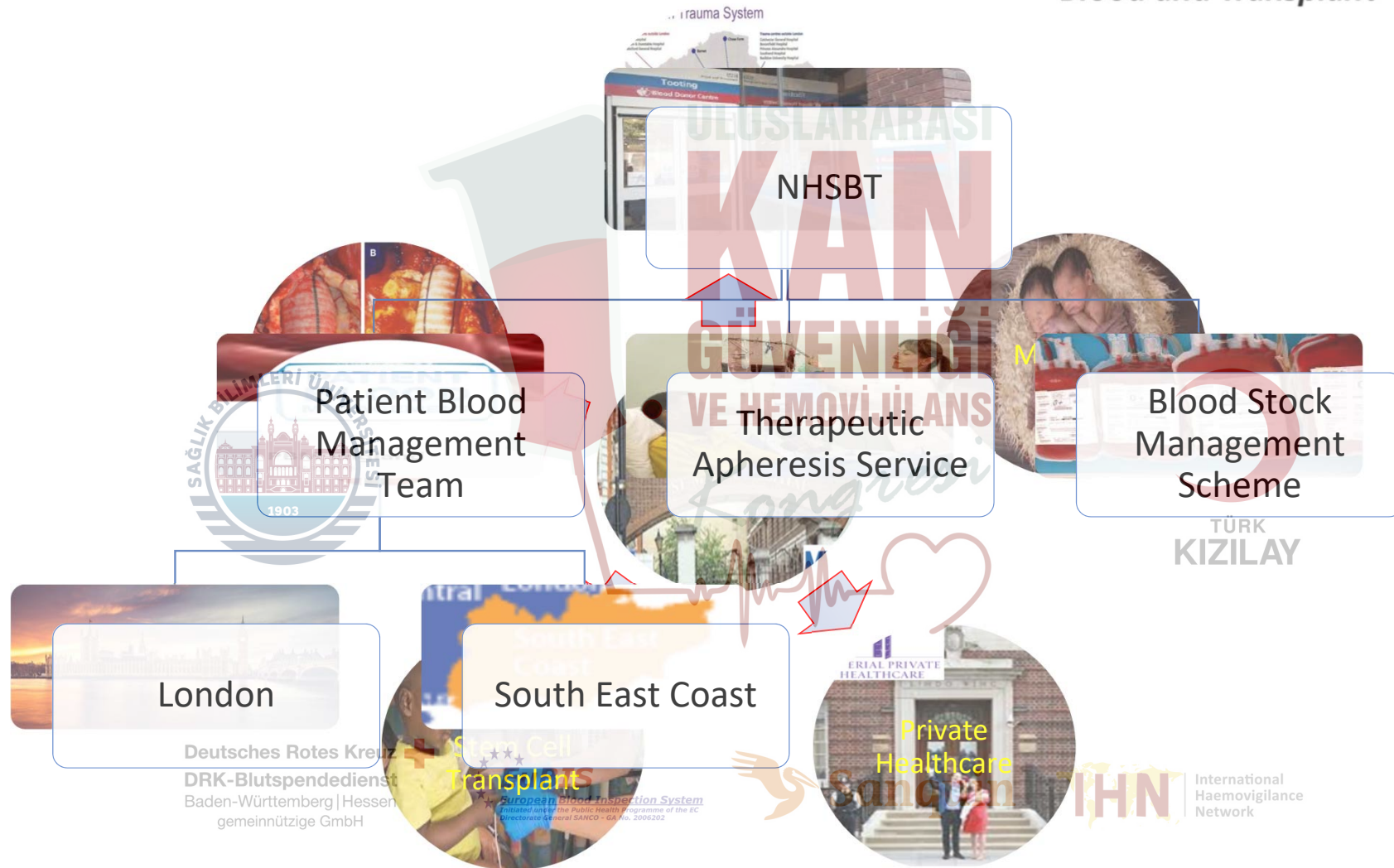
NICE Quality Standard

National Comparative Audit

PBM in practice



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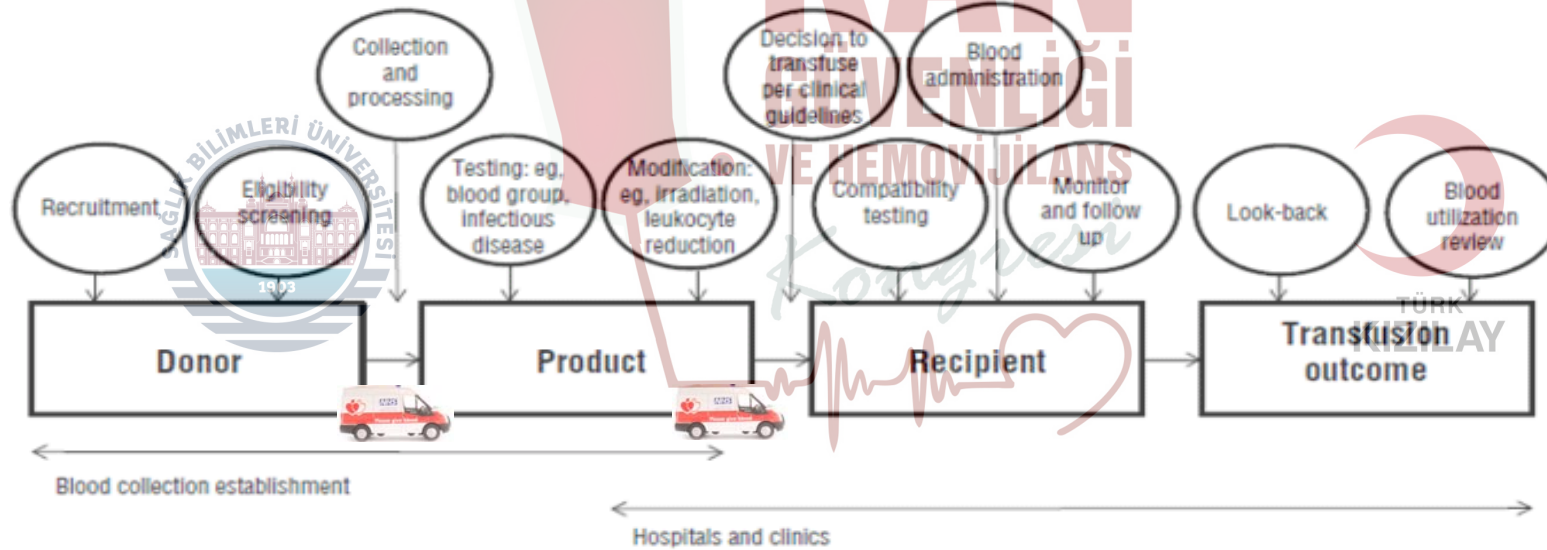
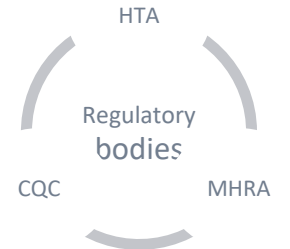
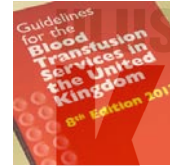


UK Transfusion Service

Caring Expert Quality




NHS
Blood and Transplant



You can give blood if you:

- are 16 and healthy
- weigh between 50 and 120 pounds (23 and 55 kg)
- are not pregnant
- are not on any blood thinning medication
- are not on any medication that affects your blood

Who can't give blood - NHS Blood Donation

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Public Health England

UK NEQAS

Haematology and Transfusion

International Haemovigilance Network

BSQR 2005

SHOT Serious Hazards of Transfusion

What is Patient Blood Management

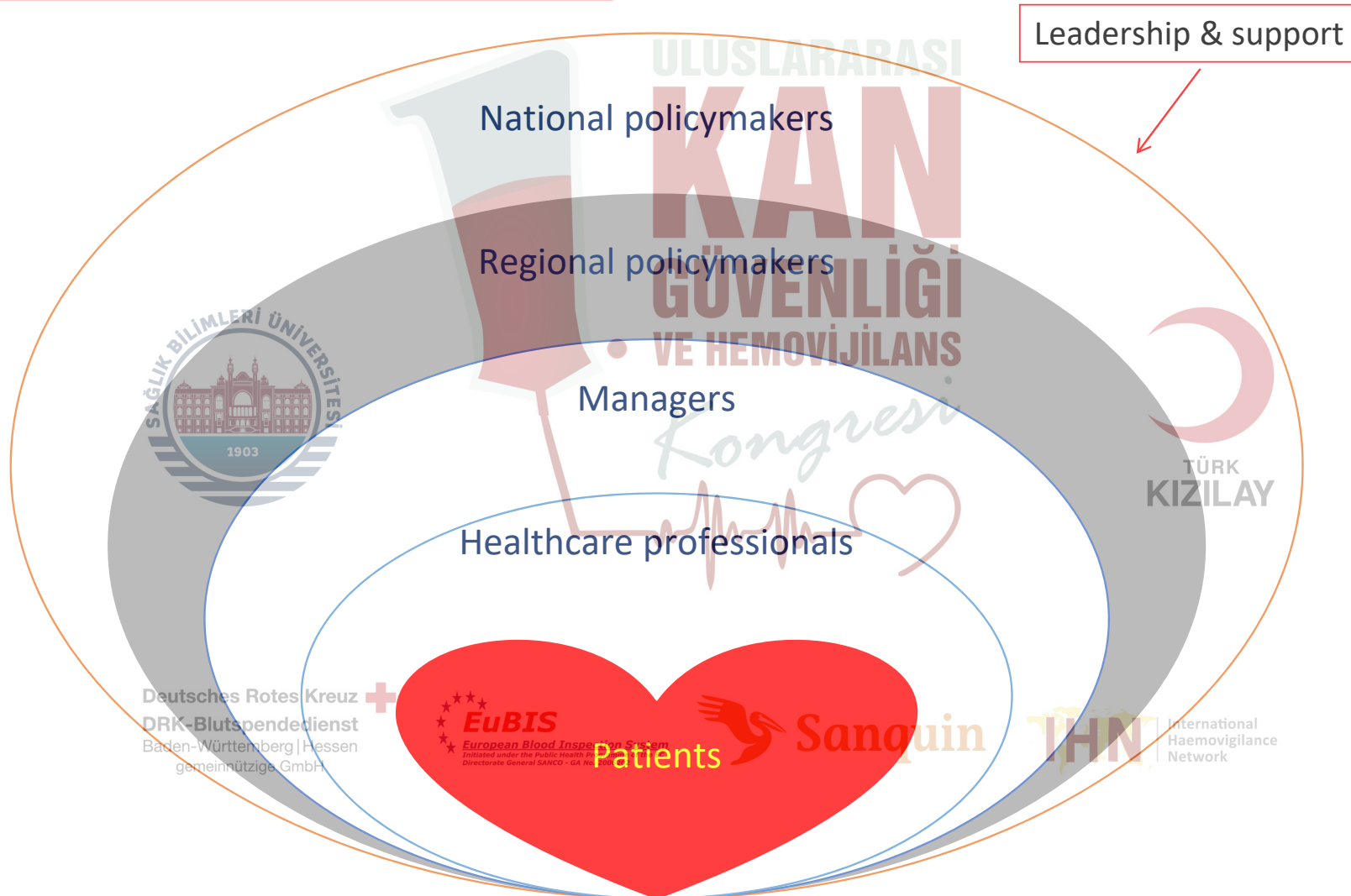
An evidence-based, multidisciplinary team approach to optimising care of patients who might need transfusion

- Focuses on
- 1) avoiding components, using alternatives where possible
 - 2) correct use of components when they are needed

Improves patient care – optimises use of donor blood and reduces transfusion-associated risk



Who needs to be involved ?



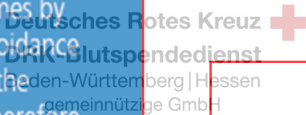
Why did we need PBM?

- “Better Blood Transfusion (BBT) initiatives” had raised concerns around
- Patient safety
 - Increase in demand for blood components
 - Resource issues across the NHS

National, regional and local audits in England consistently show inappropriate use of all blood components;

15-20% red cells 20-30% platelets/plasma

Evidence shows that the implementation of PBM improves patient outcomes by focussing on measures for the avoidance of transfusion and reducing the inappropriate use of blood and therefore can help reduce health-care costs.



National Comparative Audit (2010)
 28% of transfusions fell outside national guidelines despite “BBT initiatives”



Patient Blood Management

Puts patients at the heart of decision making about transfusion to ensure they receive the best treatment, avoiding inappropriate use of blood components



Launched in England 2012



National Blood Transfusion Committee



PBM Team Structure

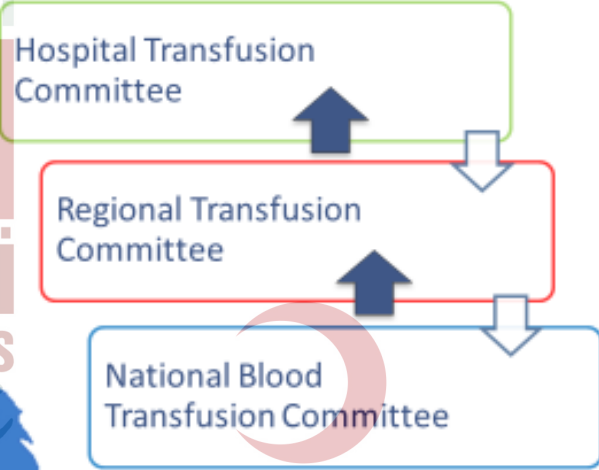
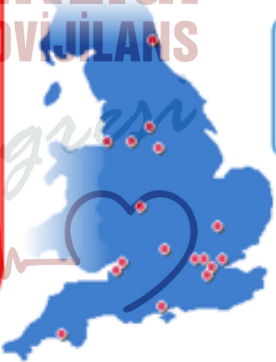
- Birmingham
- Bristol
- Cambridge
- Leeds
- London *
- Manchester
- Newcastle
- Oxford *
- South East Coast



Hospital Teams
 Haematology Consultant
 Other doctors
 Transfusion Practitioners
 Clinical Nurse Educators
 Biomedical Scientist
 Blood Bank Manager
 Quality Manager

NHSBT PBM Teams
 PBM Practitioners
 Consultant Haematologists
 Education and Audit Team
 Research and Development

Transfusion Evidence Library and Systematic Reviews Initiative



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Utilisation of data to influence transfusion practice
Provide resources needed for better transfusion practice

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JPAC Joint United Kingdom (UK) Blood Transfusion and Tissue Transplantation Services Professional Advisory Committee

- Guidelines for the Blood Transfusion Services
- Chimer detection Guidelines
- Transfusion Handbook
- Transfusion Practice
- Regulatory & Implementation
- Systematic Review Initiative
- UK Transfusion Committees

Home / UK Transfusion Committees / Welcome to the National Blood Transfusion Committee / Patient Blood Management

Patient Blood Management

HOSPITALS AND SCIENCE

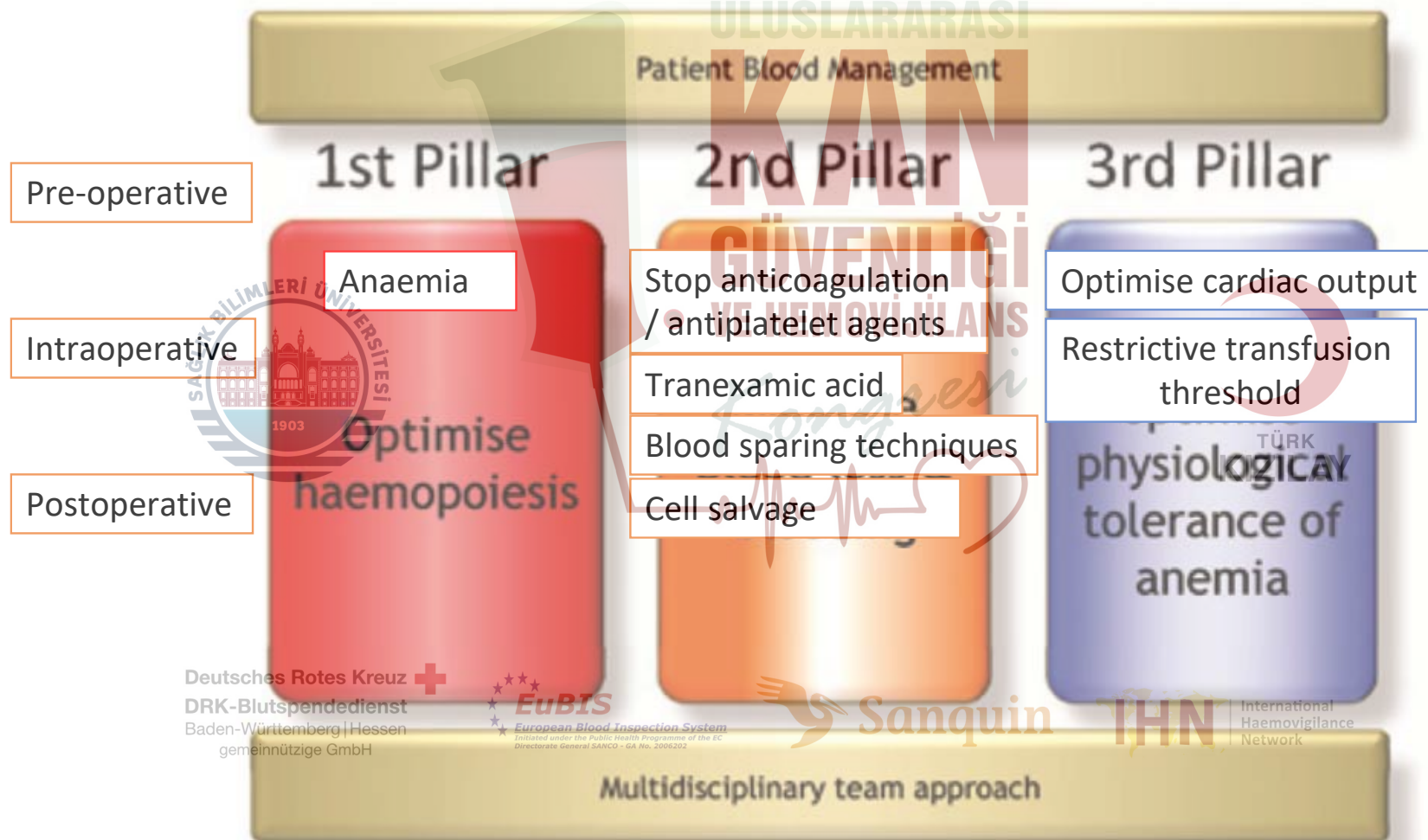
- Home
- Programs & services
- Patient services
- Collaboration
- Training
- General

14 October update on NHSBT's state of readiness for EU exit

Home / Patient services / Patient Blood Management

Patient Blood Management

Pillars of PBM



How did we decide what needed to be done?



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PBM Survey 2013

144/149 (97%) of Trusts responded

Conclusion - many Trusts had considerable scope for developing PBM initiatives

Identified following key areas for PBM development

- Few medical / nursing staff with dedicated time for PBM
 - 46% had no Consultant Haematologist in Transfusion
 - 24% had no full-time Transfusion Practitioner
- Few policies incorporating PBM
- Information Technology did not readily support PBM
- Inadequate investigation and management of anaemia
- Under-exploitation of point of care testing
- Under-use of alternatives to transfusion e.g. cell salvage



PBM Survey 2015

In 2015, the PBM survey was repeated to evaluate progress towards PBM implementation. The survey was an initiative between NHS Blood and Transplant and the National Blood Transfusion Committee.

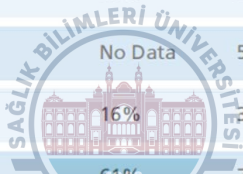
Organisational survey of

1. Resources to support PBM - staff
2. Laboratory systems
3. Consent
4. Identification and management of anaemia
5. Identification and management of bleeding patients
6. Appropriate transfusion



Is intravenous iron readily available in your hospital?

	2013	2015
Use of oral and I.V. iron by Specialty	114	126
Medicine	67%	79%
Elective general Surgery	56%	65%
Elective orthopaedic surgery	No Data	64%
Paediatrics	13%	25%
Elderly care	No Data	55%
Emergency admissions	16%	36%
Obstetrics	64%	77%
Other	16%	27%



98%

of Trusts are able to offer both oral and IV iron to correct anaemia

There has been an increase in the use of oral and intravenous iron across all specialties
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Lower Transfusion Threshold

51%

of respondents have either implemented a lower transfusion threshold policy or are planning to.

12

organisations did have a policy that covered specific clinical areas. Where this was the case, 46% covered critical care and 46% covered clinical haematology.

Single Unit

27%

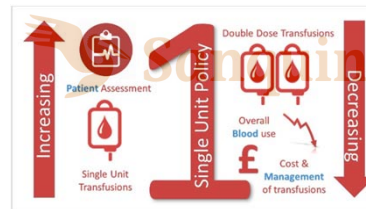
of Trusts have a single unit red cell policy and 8% have it in specific areas.

53%

of Trusts have said they are planning to introduce a single unit red cell policy.



Lower Transfusion Threshold Single Unit Policy



SINGLE Unit Blood Transfusions reduce the risk of an adverse reaction

Don't give two without review

THINK!

- Is this patient symptomatic?
- Is this transfusion essential?
- What is the clinical target level?
- What is the patient's target haemoglobin level?

Each unit transfused is an independent clinical decision

DO!

- Clinically re-assess the patient after each unit transfused.
- Only one unit should be ordered for non-bleeding patients.
- Document the reason for 'transfusion'.

Do you use anti fibrinolytics?

Does the Trust use anti-fibrinolytics, e.g. Tranexamic Acid, for major bleeding in the following patients?		2013	2015
Trauma		74%	91%
Surgical		71%	91%
General medical		44%	46%
Obstetric		60%	71%
Other		-	15%



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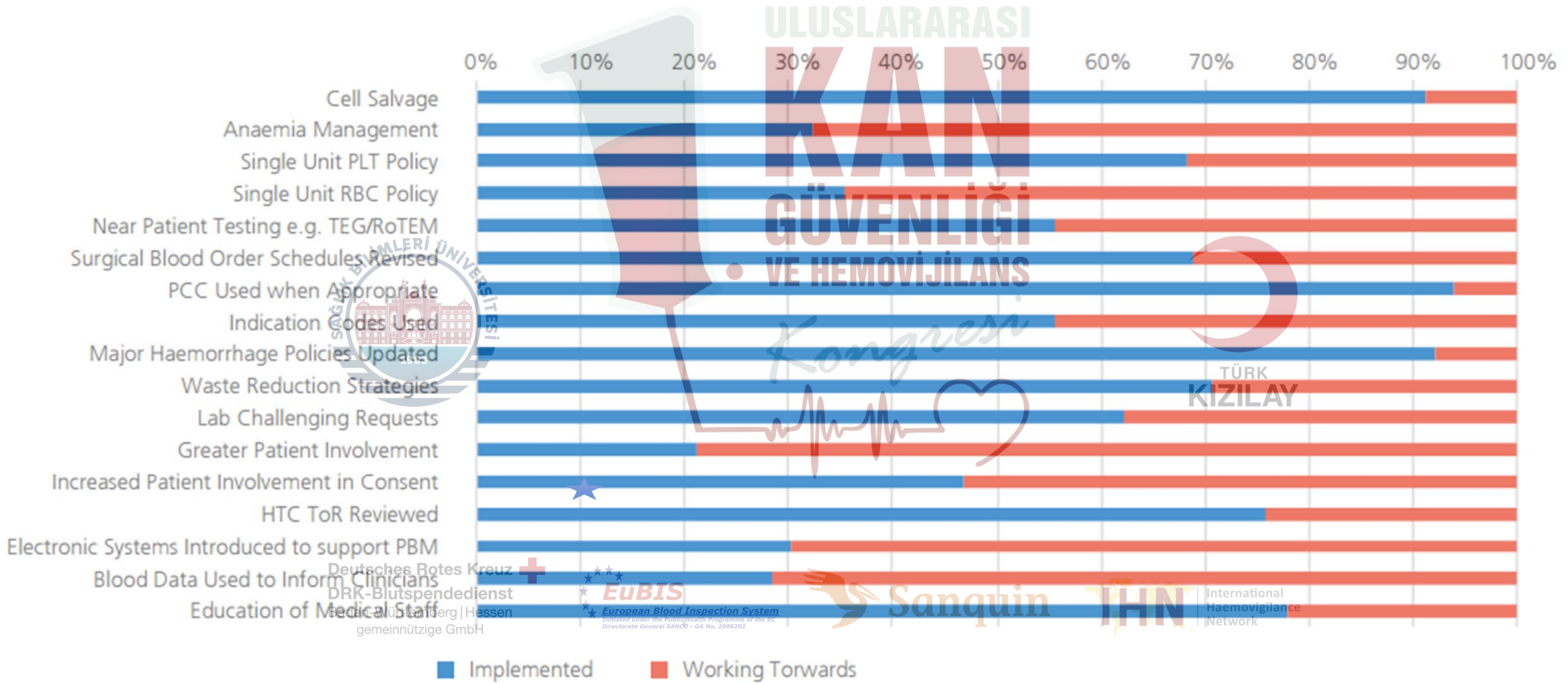
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2013 2015
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44% 46%



Summary of 2015 Survey



Proposals put forward following 2015 survey

- National PBM guidance / recommendation
 - Sharing best practice
 - Clinical benchmarking data
 - To promote clinical change

- Educational tools on PBM

- Target

- Hospital clinicians (education days, roadshow, workshops etc)
- Senior management teams
- General Practitioners / Commissioners

- Improve IT links with hospitals



Blood transfusion

NICE guideline [NG24] Published date: November 2015

(NICE) provides national guidance and advice to improve health and social care. Accountable to but independent of DOH

- QS138:
- Prioritising 4 key areas
- Targeting patients over 1yr

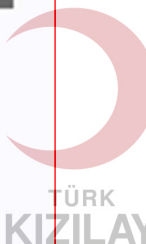
Quality statements

Statement 1 People with iron-deficiency anaemia who are having surgery are offered iron supplementation before and after surgery.

Statement 2 Adults who are having surgery and expected to have moderate blood loss are offered tranexamic acid.

Statement 3 People are clinically reassessed and have their haemoglobin levels checked after each unit of red blood cells they receive, unless they are bleeding or are on a chronic transfusion programme.

Statement 4 People who may need or who have had a transfusion are given verbal and written information about blood transfusion.



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3 years later

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1903

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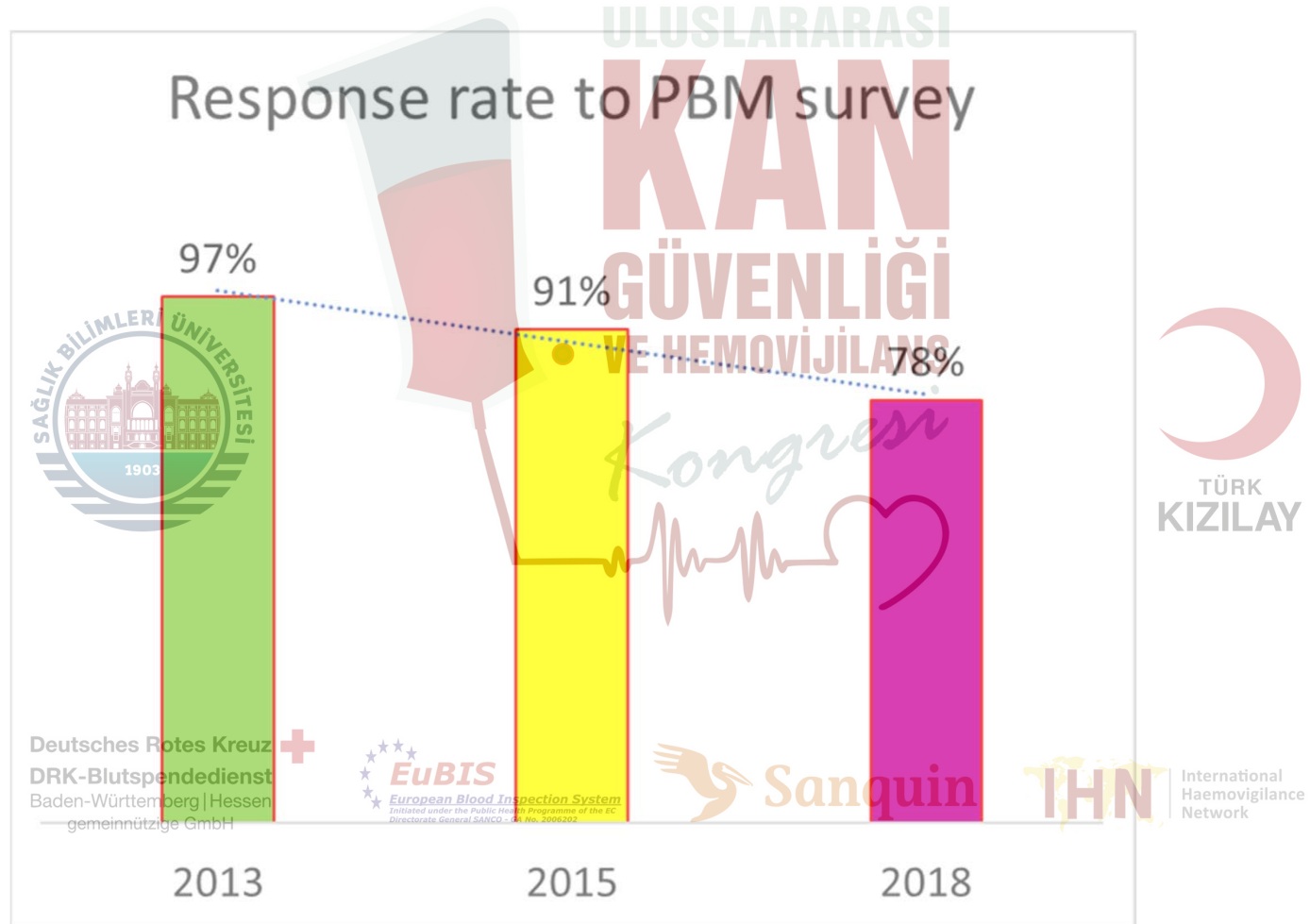
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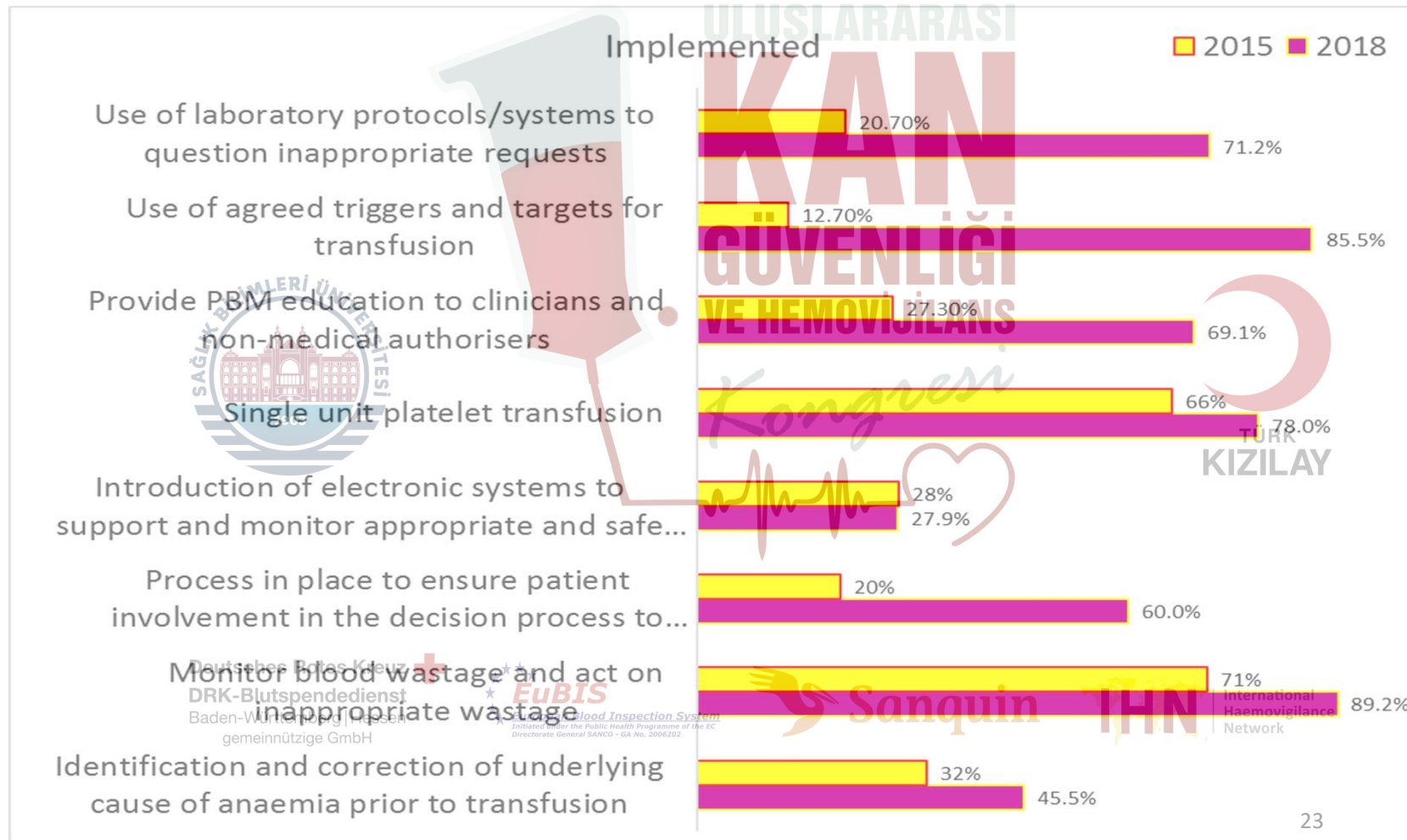
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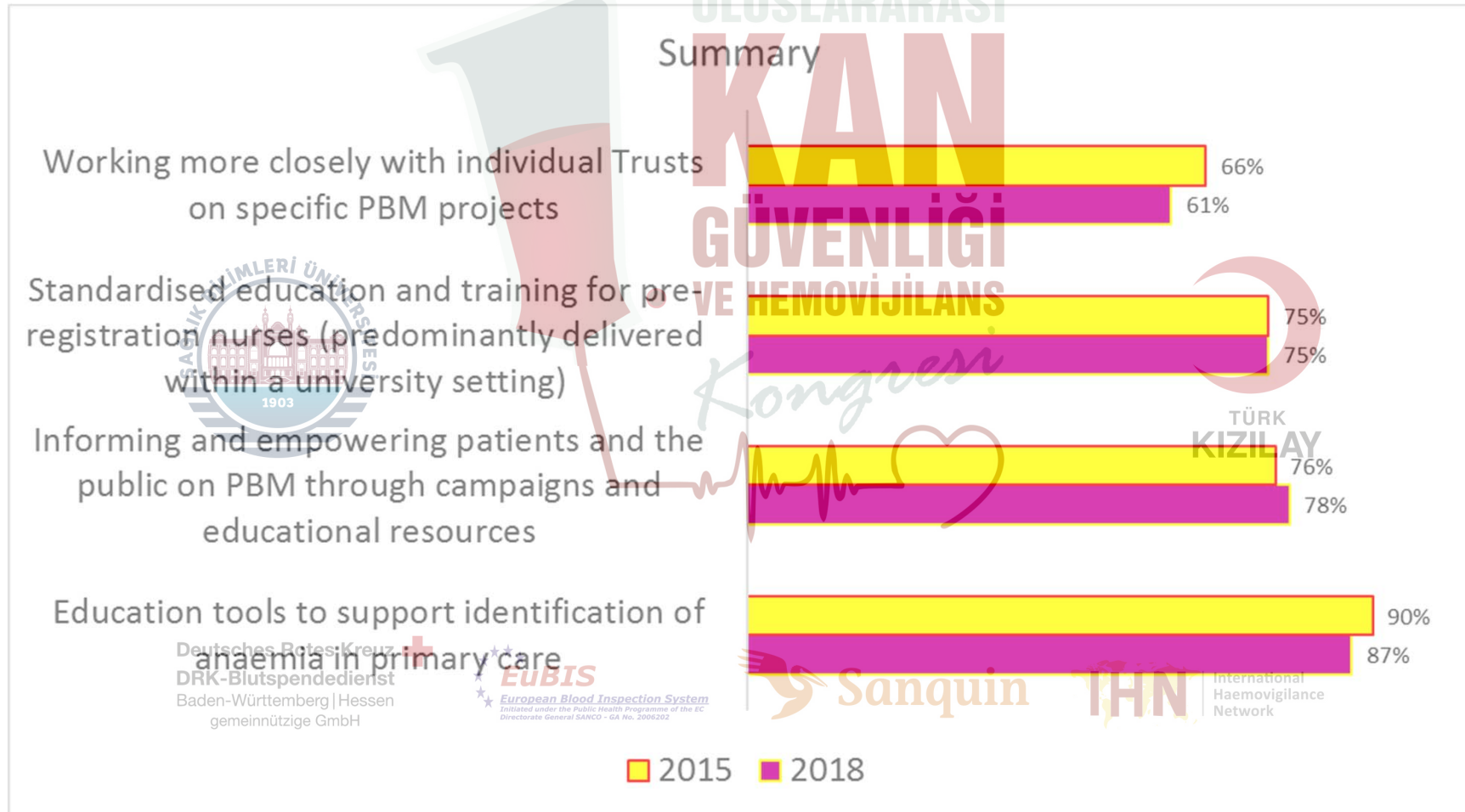
Survey response rate



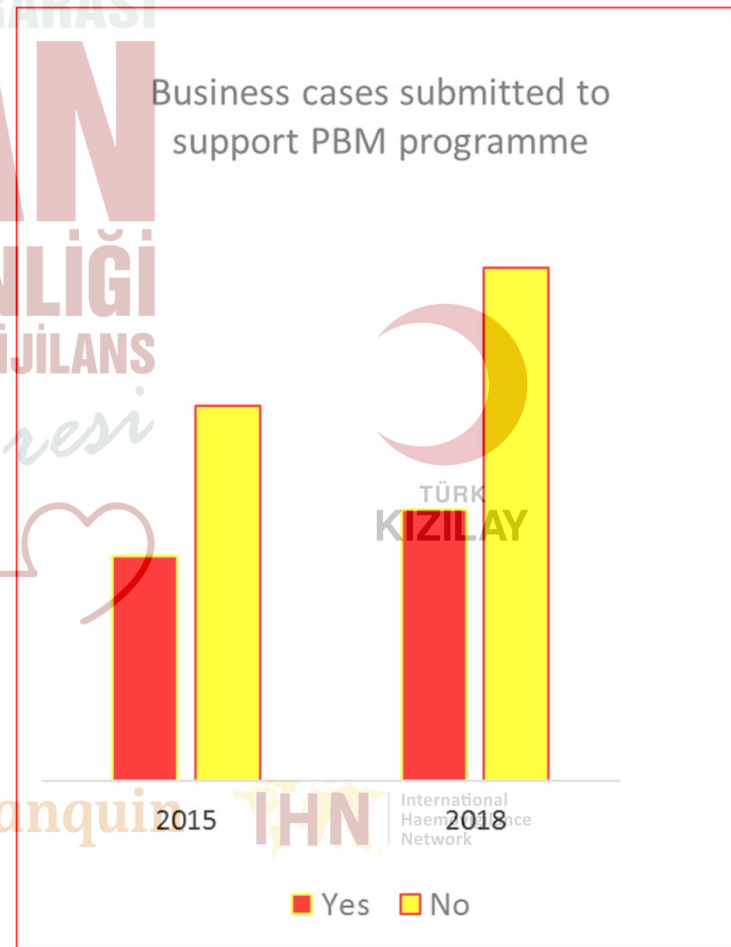
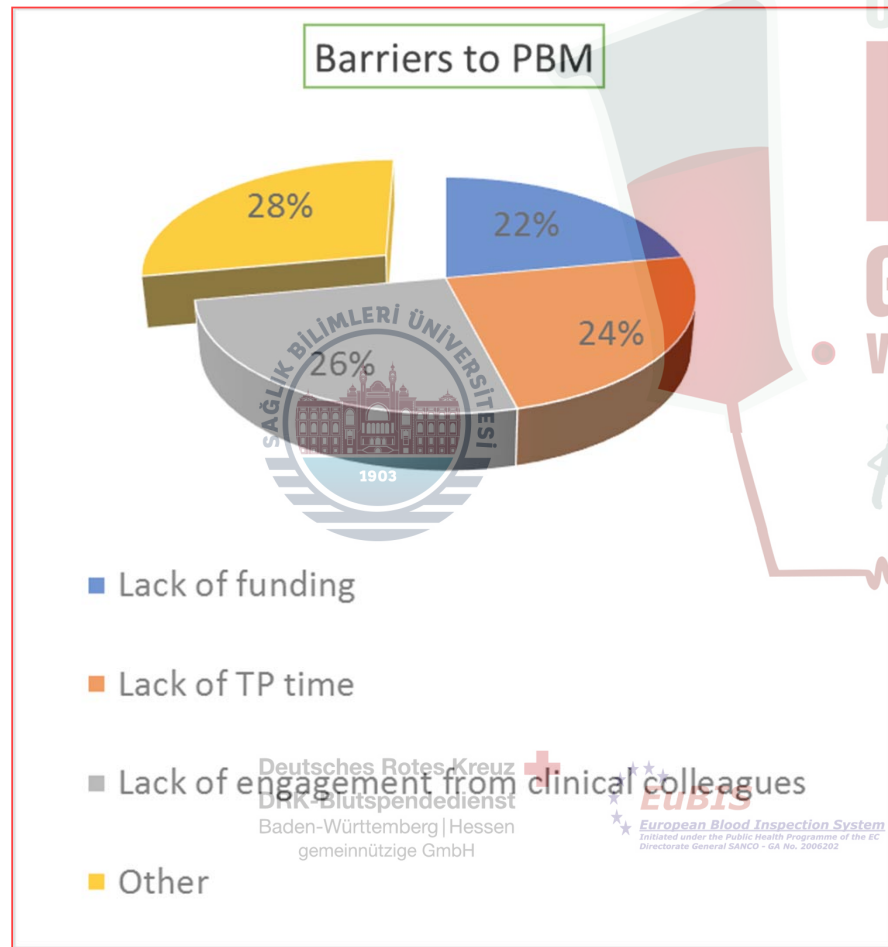
2018 Progress with PBM Initiatives

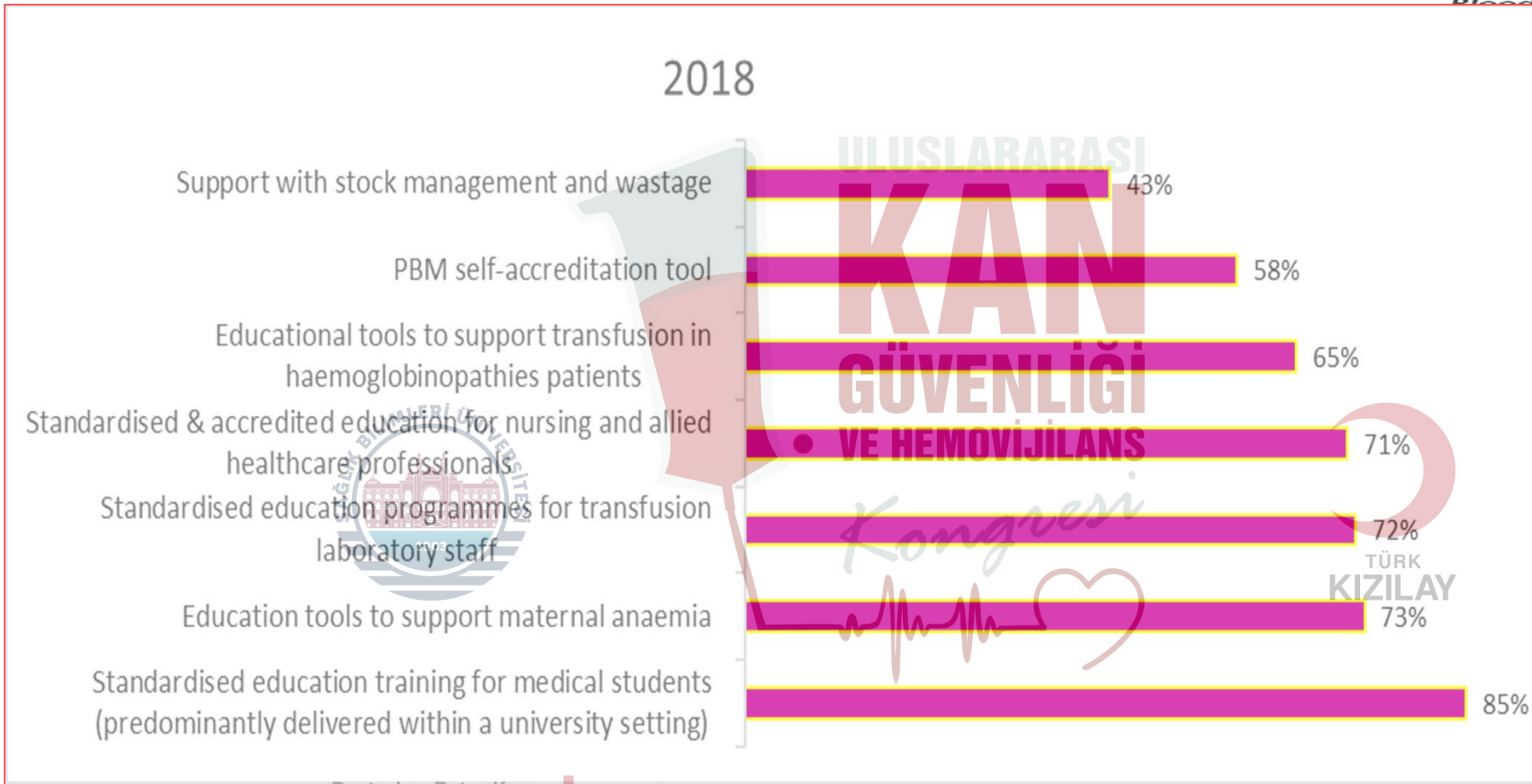


PBM initiatives unchanged from 2015-2018



2018 PBM Survey





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TIIN

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How NHSBT / NBTC supported Trusts with PBM implementation in 2018

Next steps for Trusts

1. Discuss national & local PBM survey reports

2. Undertake a gap analysis

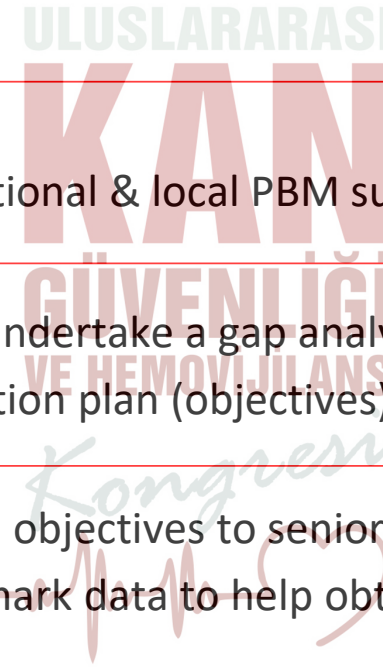
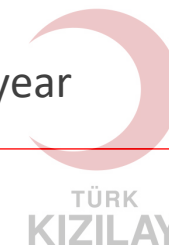
3. Write an action plan (objectives) - for this year

4. Promote objectives to senior managers

5. Use benchmark data to help obtain resources

6. Engage with Regional Transfusion Committees

7. Form small working groups – to develop key PBM objectives



How has PBM impacted on our blood supply to hospitals ?



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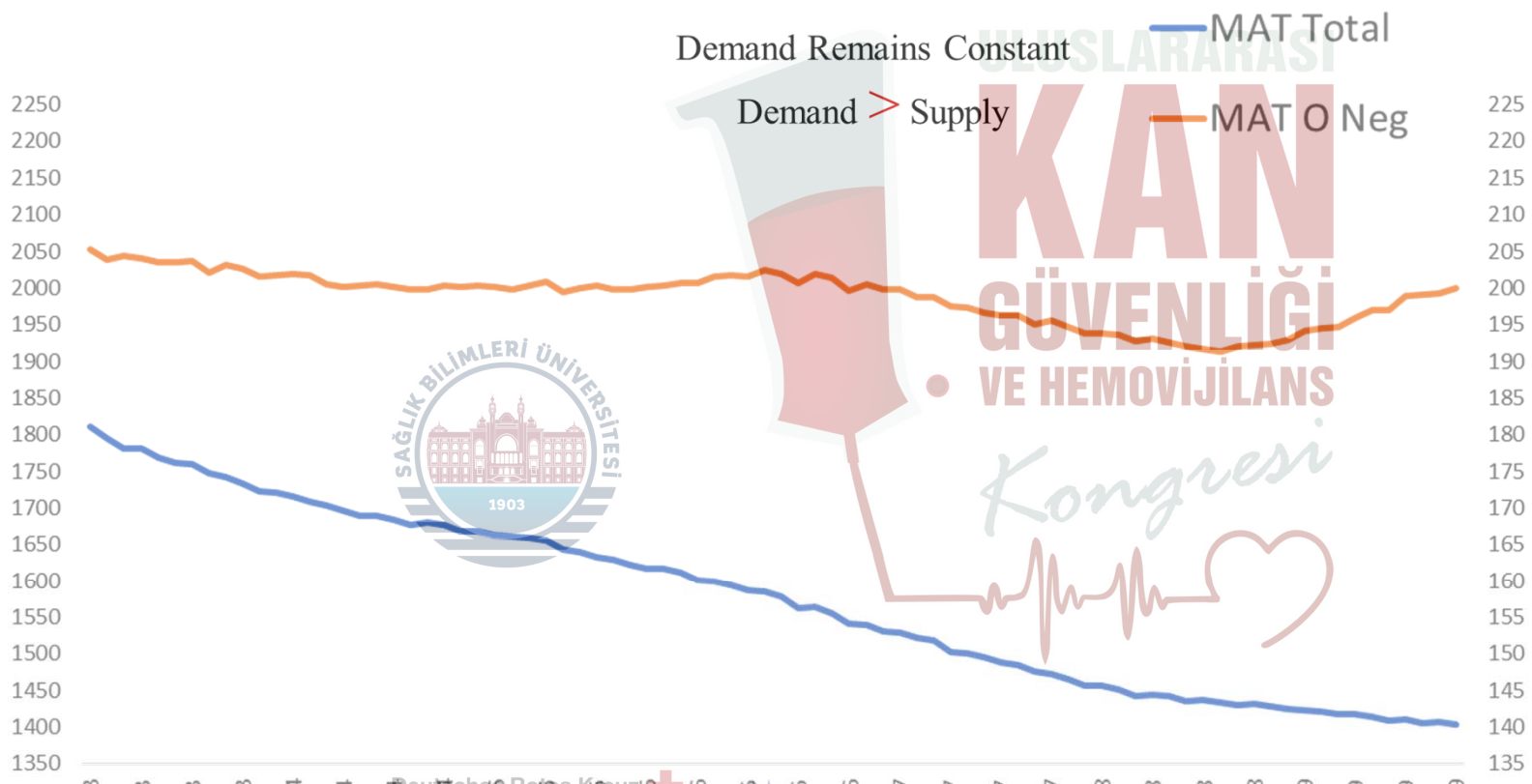
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Annual Blood Supply to Hospitals



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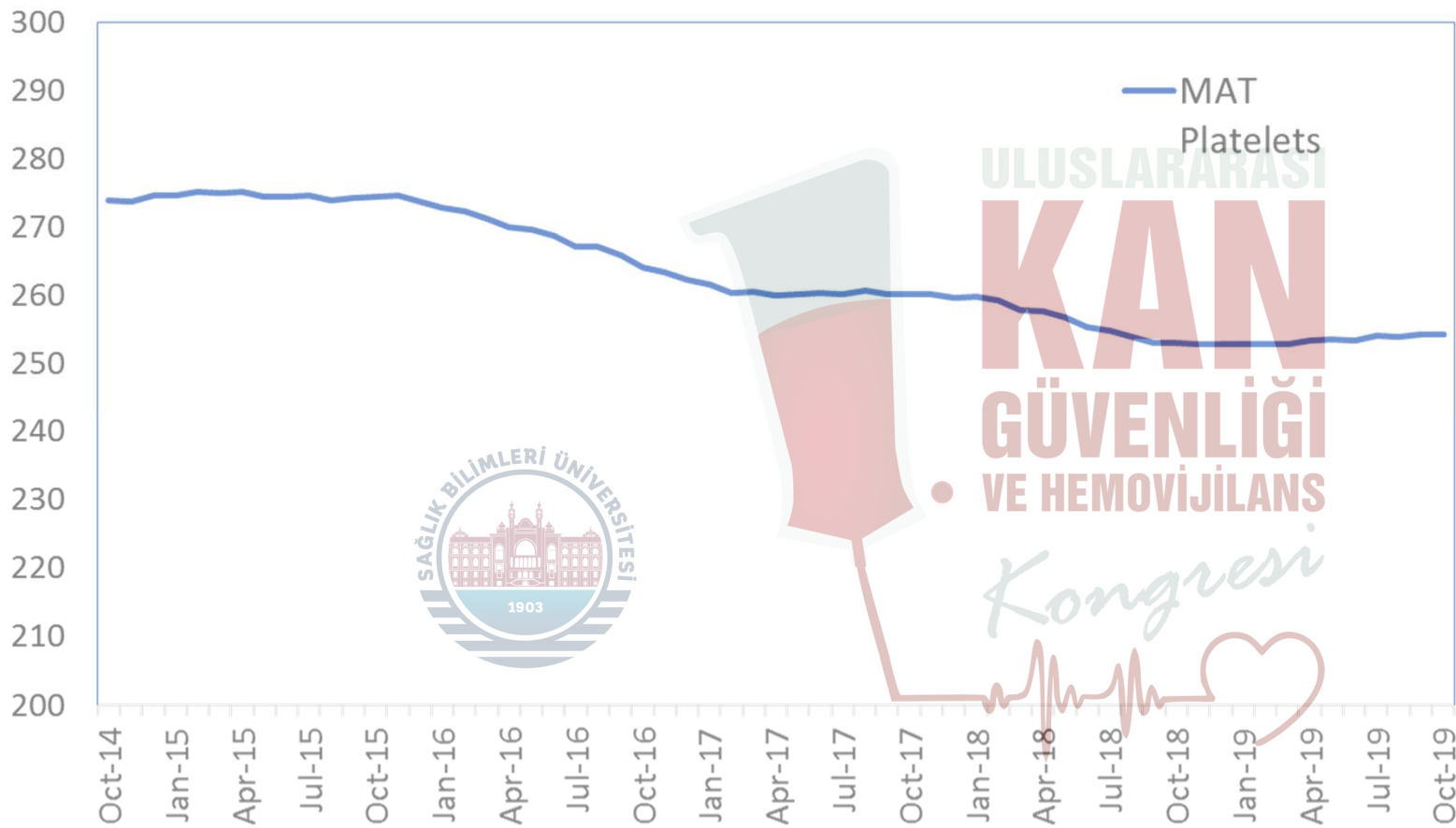
SAVE 1 O D NEG A WEEK

International Haemovigilance Network

The appropriate use of group O D negative red cells

BLU EDUCATION HOME PAGE ABOUT

© O negative blood is in demand, and use will always remain higher than the proportion of donors, but why is it so crucial to maintain the supply and how can we make sure we are using it wisely? Helen talks to Dr Lucy Morton about the issues.



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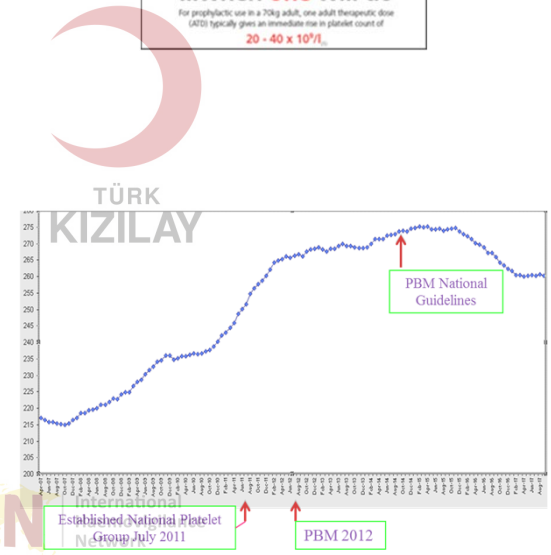
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Annual Platelet Supply to hospitals

NHS
Blood and Transplant



National Comparative Audits

In operation since 2003 provides:

- Benchmarking
- Evidence to support change

National comparative audit

In this section

Blood sampling, collection and administration of blood components

Medical audits

National Comparative Audit reports

Paediatric and neonatal audits

Pregnancy and childbirth audits

Surgical audits

Your participation is important to us

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1. Identify problem or issue

2. Set criteria & standards

3. Observe practice / data collection

4. Compare performance with criteria & standards

5. Implementing change

2020

- Audit of Patient Blood Management in Paediatric Surgery (Spring 2020)
- Survey of use of FFP, cryoprecipitate, PCC and fibrinogen concentrate (Spring 2020)
- Audit of NICE Quality Standards (Autumn 2020)

2019

- Re-audit of the medical use of blood Autumn 2019

2018

- Audit of maternal anaemia Autumn 2018 (interim report sent out to hospitals). Full report awaited.
- Audit of FFP and cryoprecipitate in children and neonates Spring 2018 (interim report sent out to hospitals). Full report awaited.
- Audit of massive haemorrhage Autumn 2018 (interim report sent out to hospitals). Full report awaited.

SAĞLIK BİLİMLERİ ÜNİVERSİTESİ

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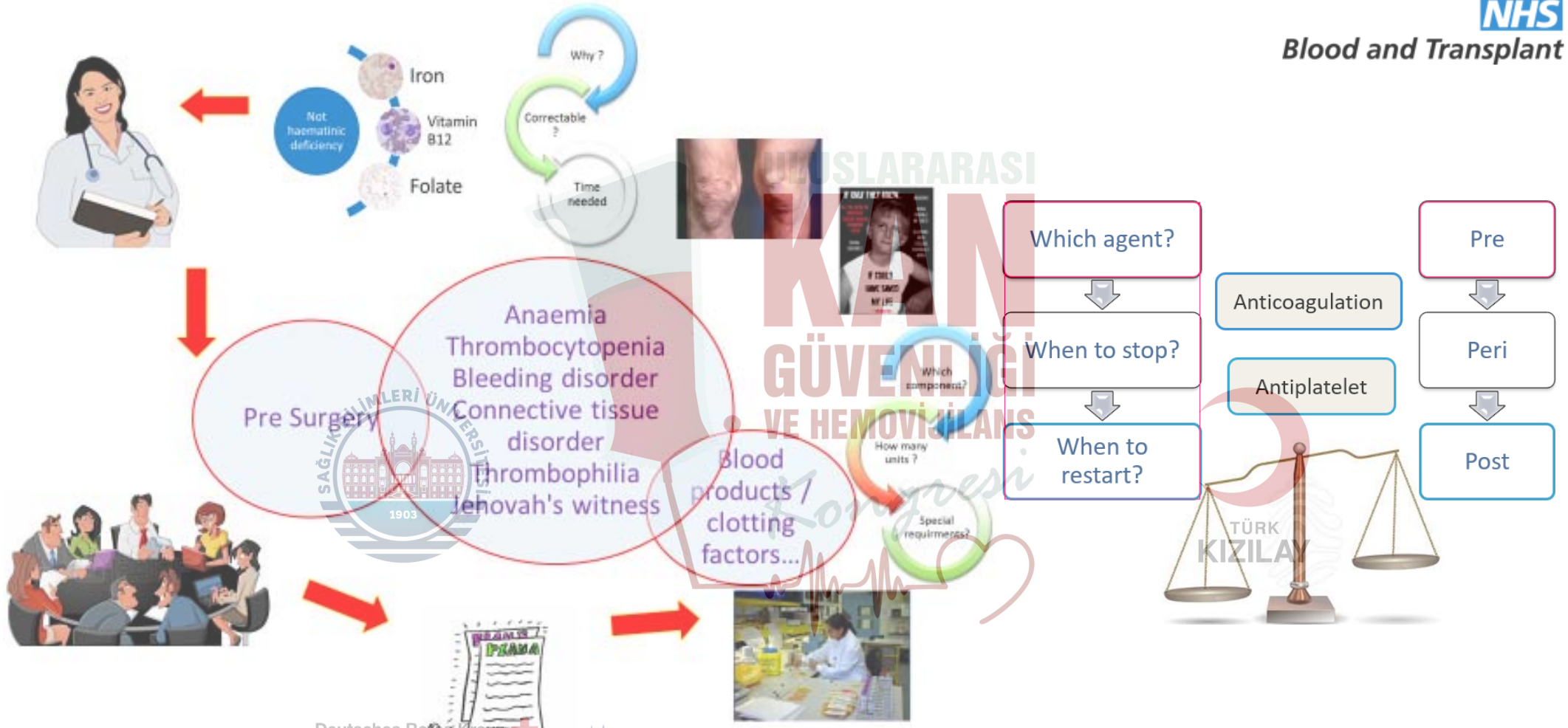
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<https://hospital.blood.co.uk/audits/national-comparative-audit/national-comparative-audit-reports/>



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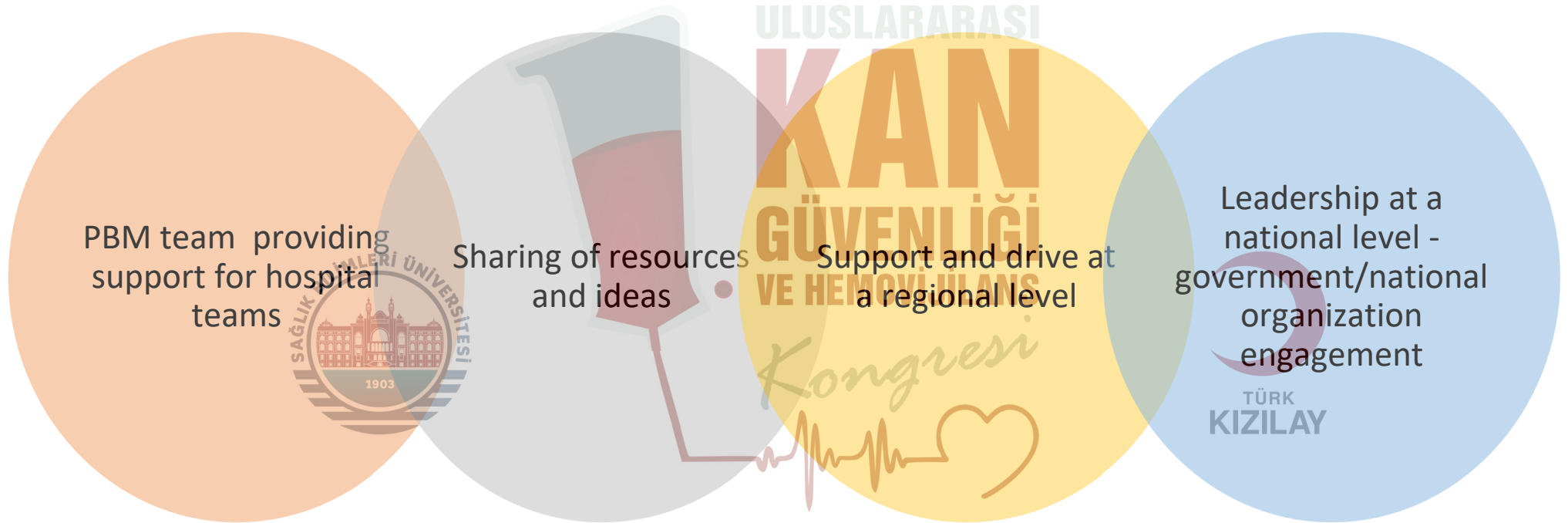
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PBM in Practice - Pre-assessment Clinics

Success of PBM



Focus on Patient Care

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Simple Evidence-Based Principles

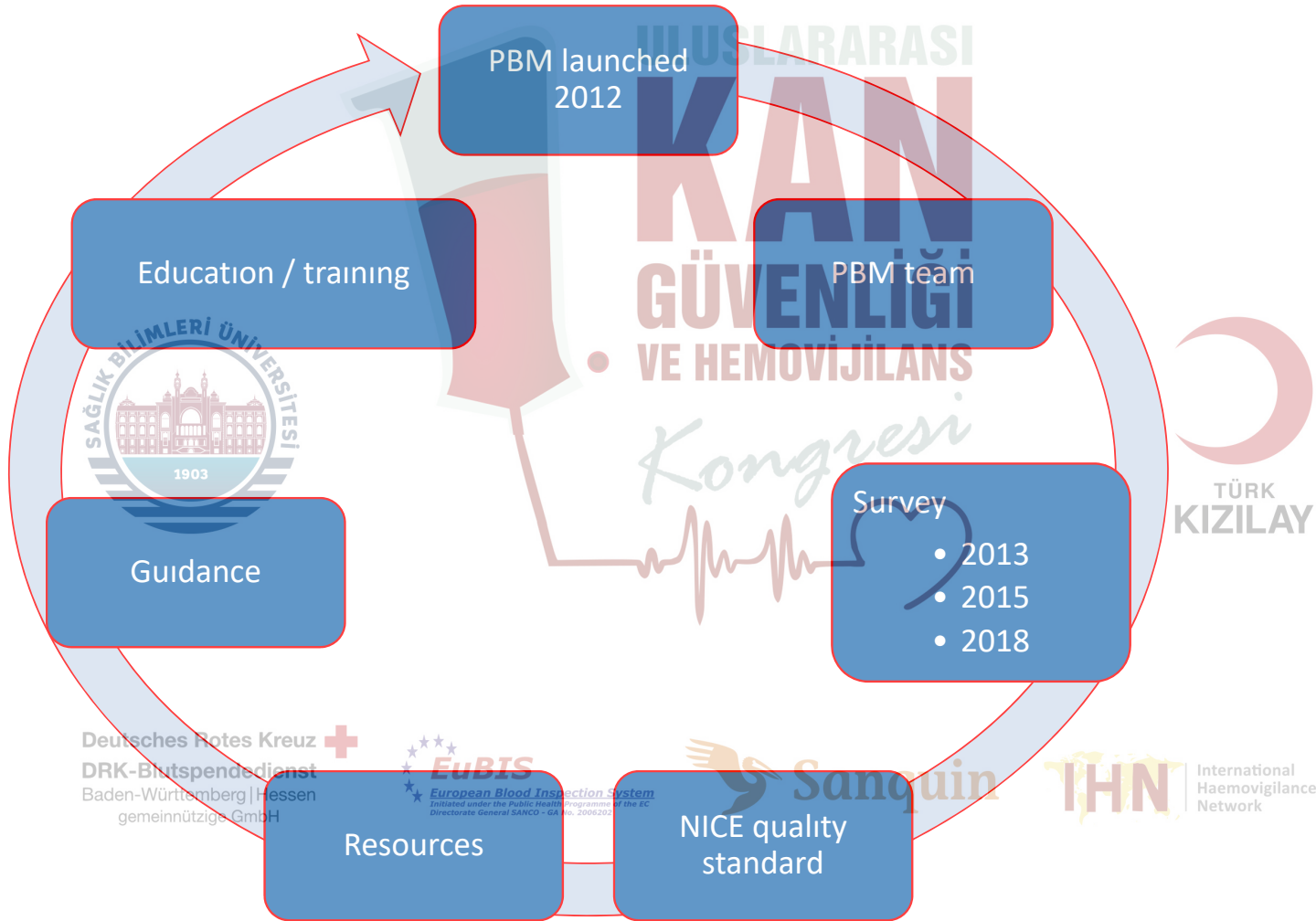
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Communication & Education

Summary



Acknowledgments

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