

D4: Safe surgical flow – how timely surgery
and work environment goes hand in hand



International Forum on
QUALITY & SAFETY
in **HEALTHCARE**
COPENHAGEN



Adapting to a changing world: equity, sustainability
and wellbeing for all



 @QualityForum #Quality2023

 Institute for
Healthcare
Improvement

BMJ

midt

Central Denmark Region

Safe Surgical Flow

How timely surgery and work environment goes hand in hand



Presenters

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Aarhus University Hospital*

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*Neurosurgeon
Aarhus University Hospital*



Central Denmark Region

- 1 of 5 regions in Denmark
- 1.3 million inhabitants – approximately 23 % of the overall population in Denmark
- 5 hospitals
 - 4 general hospitals
 - 1 university hospital
- 200,000 surgical procedures per year



Agenda

- Urgency classification
- Experiences
- Insights



TAKE HOME MESSAGES



Take home messages

The urgency classification tool...

- 1 creates a common language that breaks down barriers
- 2 provides transparency of surgical capacity
- 3 enhances work environment





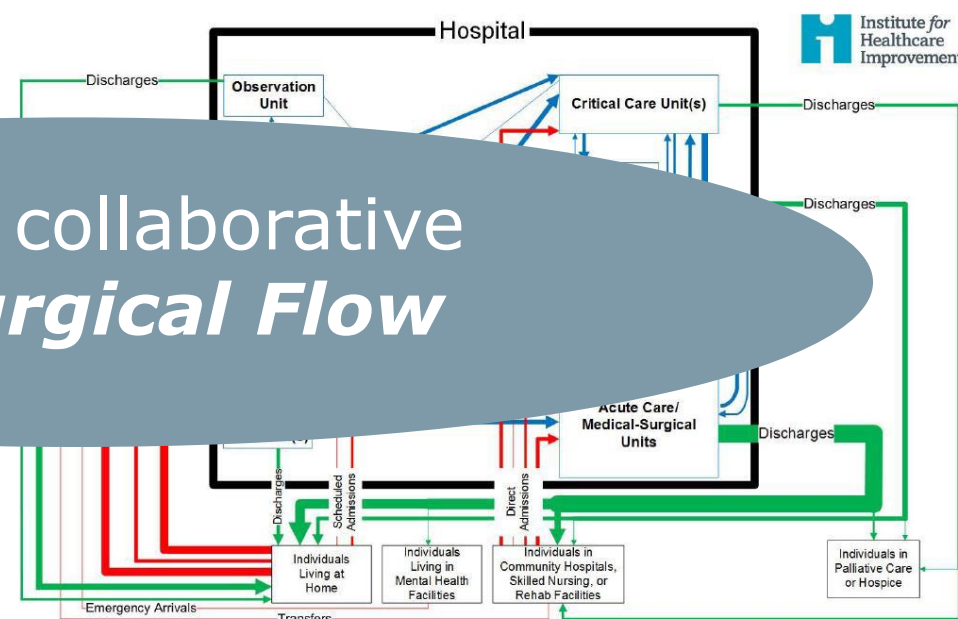
URGENCY CLASSIFICATION



Achieving hospital-wide patient flow

- The right care, in the right place, at the right time
- OR – achieving the right patient flow

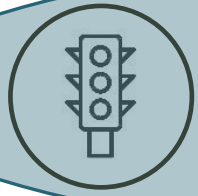
Regional collaborative
Safe Surgical Flow



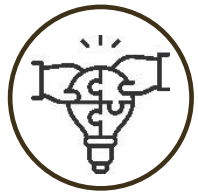
Key: Blue arrows: Flow within hospital | Red arrows: Flow into hospital | Green arrows: Flow out of hospital | Width of arrows: Typical flow volumes
<http://www.ihl.org/resources/Pages/IHIWhitePapers/Achieving-Hospital-wide-Patient-Flow.aspx>



Safe Surgical Flow: Corner stones



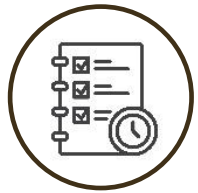
Timely surgery of acute surgical patients



Team collaboration



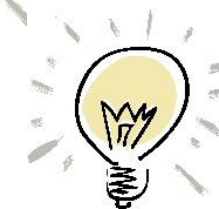
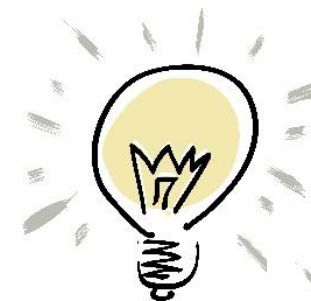
Determination of the first patient in the OR



Capacity planning

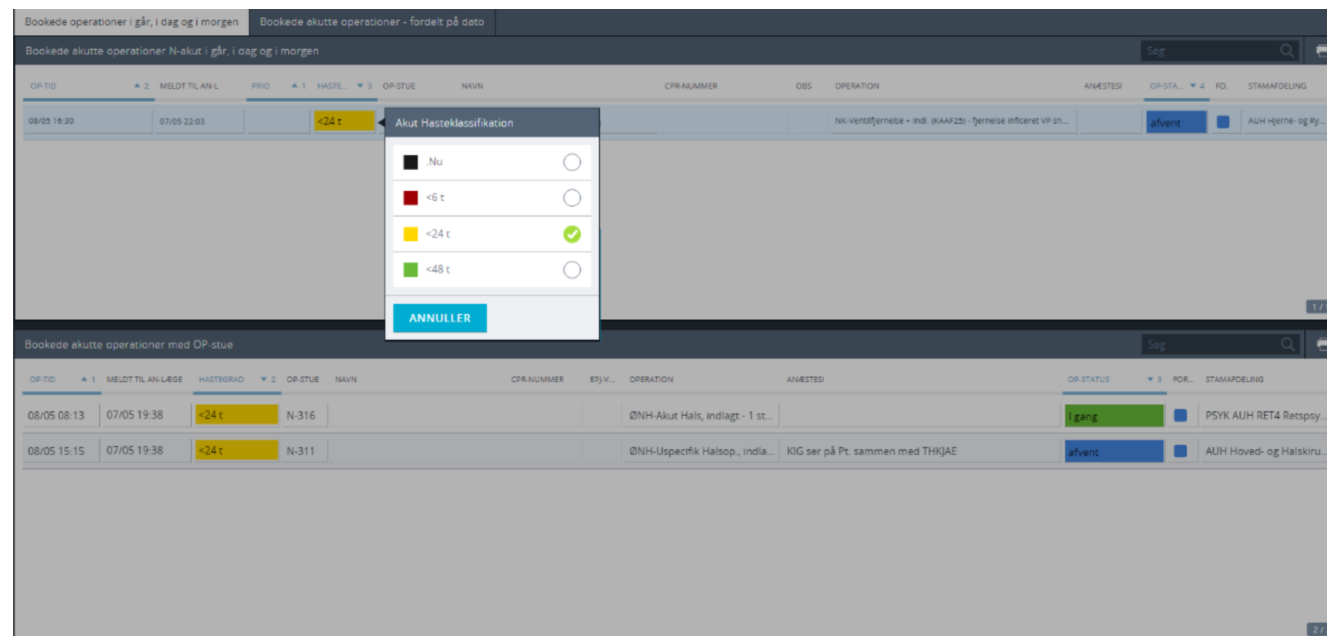


International inspiration



Urgency classification

-  Immediately
-  Within 6 hours
-  Within 24 hours
-  Within 48 hours



The screenshot shows a web interface for scheduling operations. A dropdown menu titled 'Akut Hasteklassifikation' is open, showing four options: 'Nu' (black square), '<6 t' (red square), '<24 t' (yellow square, selected with a green checkmark), and '<48 t' (green square). Below the menu is an 'ANNULLER' button. The background shows a table of scheduled operations with columns for OP-ID, MELDT TIL ANLÆSE, PRIORITET, HASTEGRAD, OP-STUET, NAVN, CPR-NUMMER, OPERATION, ANÆSTESI, and OP-STATUS.

OP-ID	MELDT TIL ANLÆSE	PRIORITET	HASTEGRAD	OP-STUET	NAVN	CPR-NUMMER	OPERATION	ANÆSTESI	OP-STATUS	FOR...	STAMAFDELING
08/05 16:30	07/05 22:03		<24 t				NK-ventilfjernelse - indl. (KAARZS) - fjerneise inficeret VP sn...		afvent		AUH Hjerne- og Ry...
08/05 08:13	07/05 19:38		<24 t	N-316			ØNH-Akut Hals, indlagt - 1 st...		1 gang		PSYK AUH RET4 Retpsy...
08/05 15:15	07/05 19:38		<24 t	N-311			ØNH-Usspecifik Halsop., indla...	KIG ser på Pt. sammen med THKJAE	afvent		AUH Hoved- og Halskiru...



Your pains and gains?



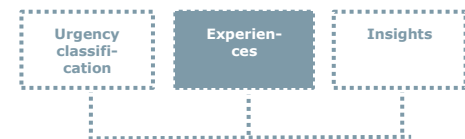


EXPERIENCES



Experiences

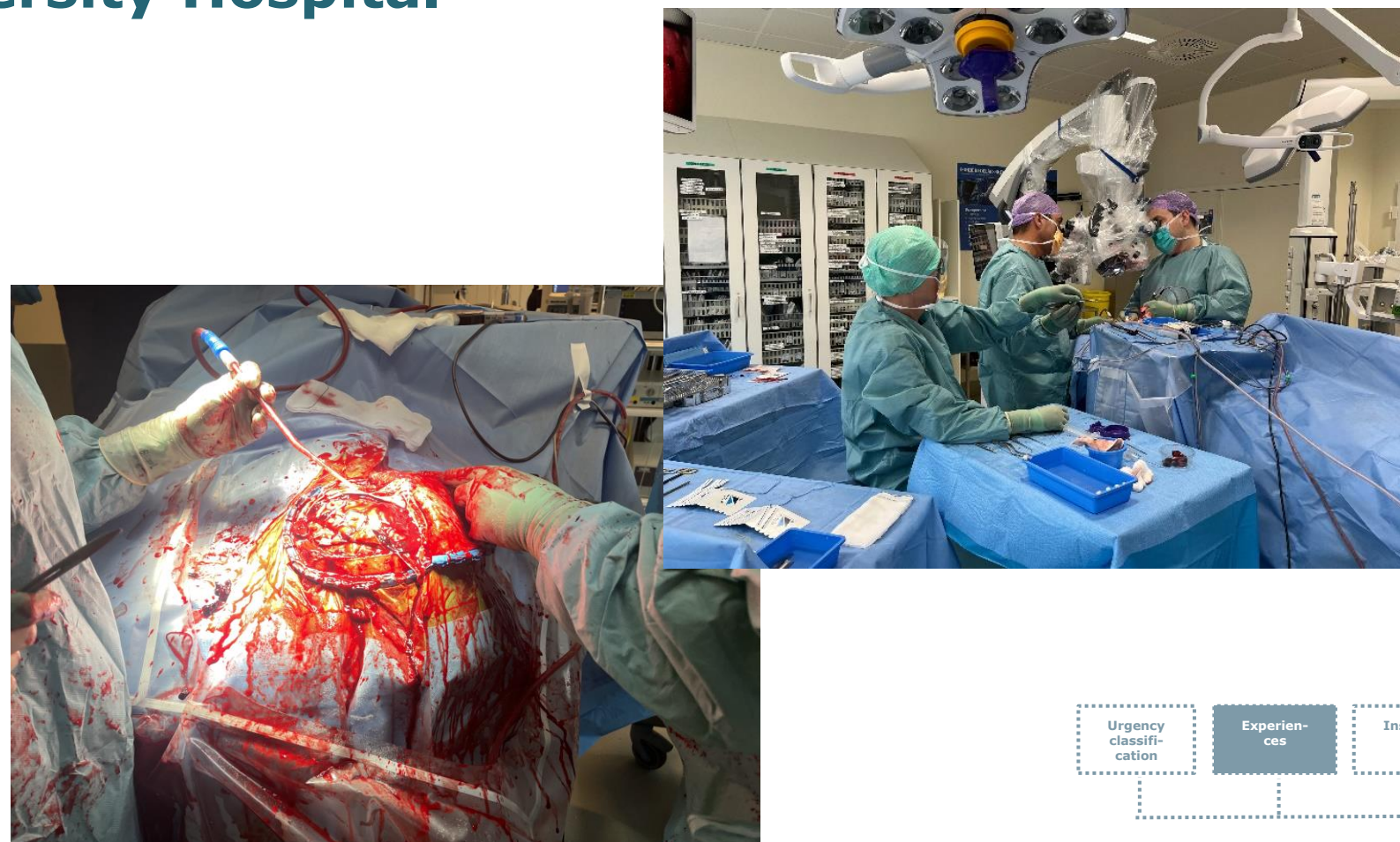
- 1 Work environment for surgeons and OR-staff
- 2 Ensuring a uniform and objective prioritisation of the acute surgical patients
- 3 "Mapping your population"



1

Enhancing work environment in the OR

Aarhus University Hospital



Safe Surgical Flow
Quality and Patient Safety



Workload and work environment Challenges



Cancellation of elective surgeries



Timely diagnostics and treatment for patients with cancer



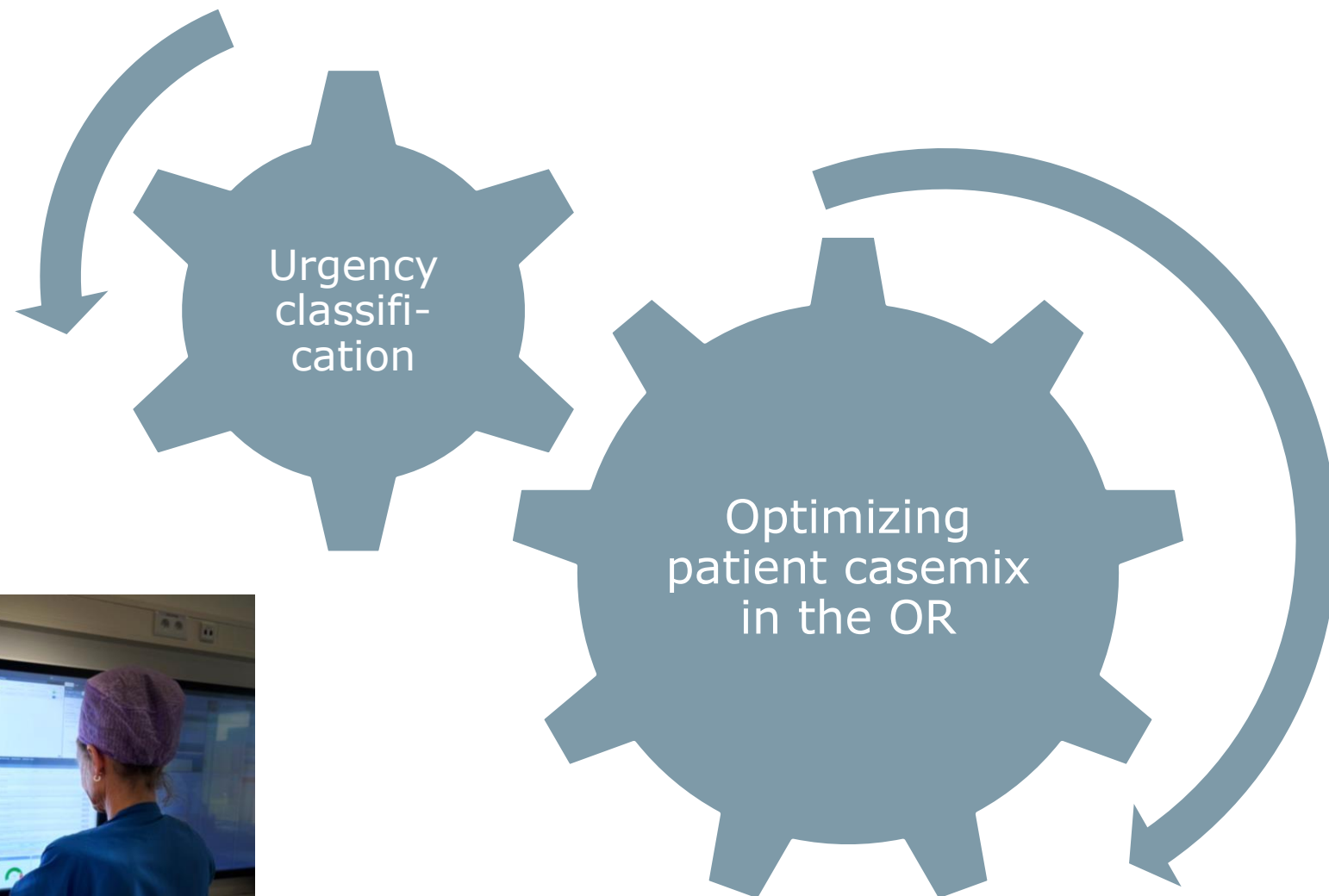
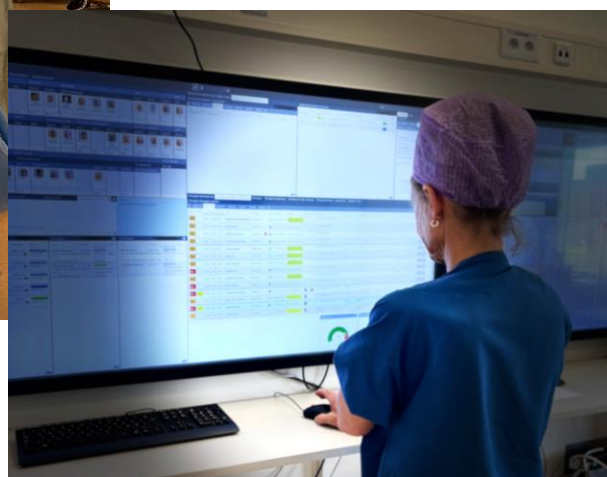
Work environment



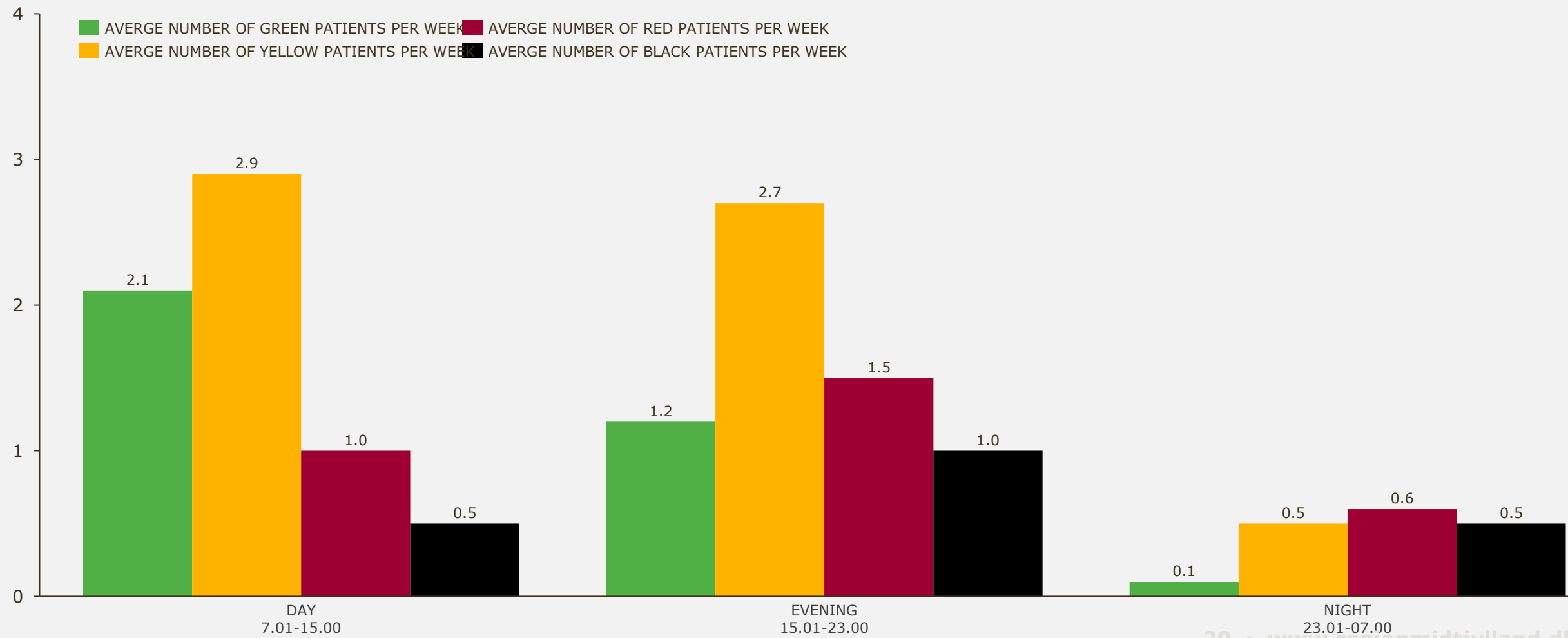
Re-organisation at OR

Workload and work environment

Our solutions



Workload and work environment

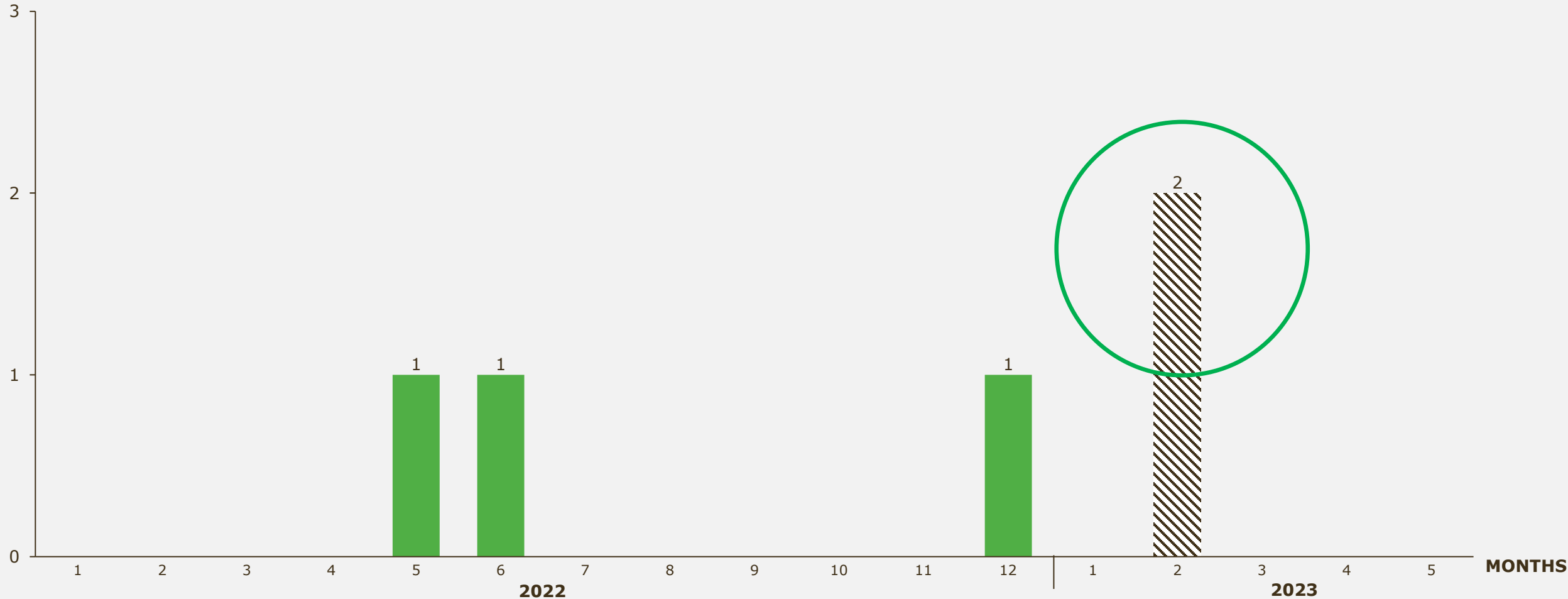


Data from 1 January 2022 to 31 December 2022

Workload and work environment

Do we operate green patients in the night?

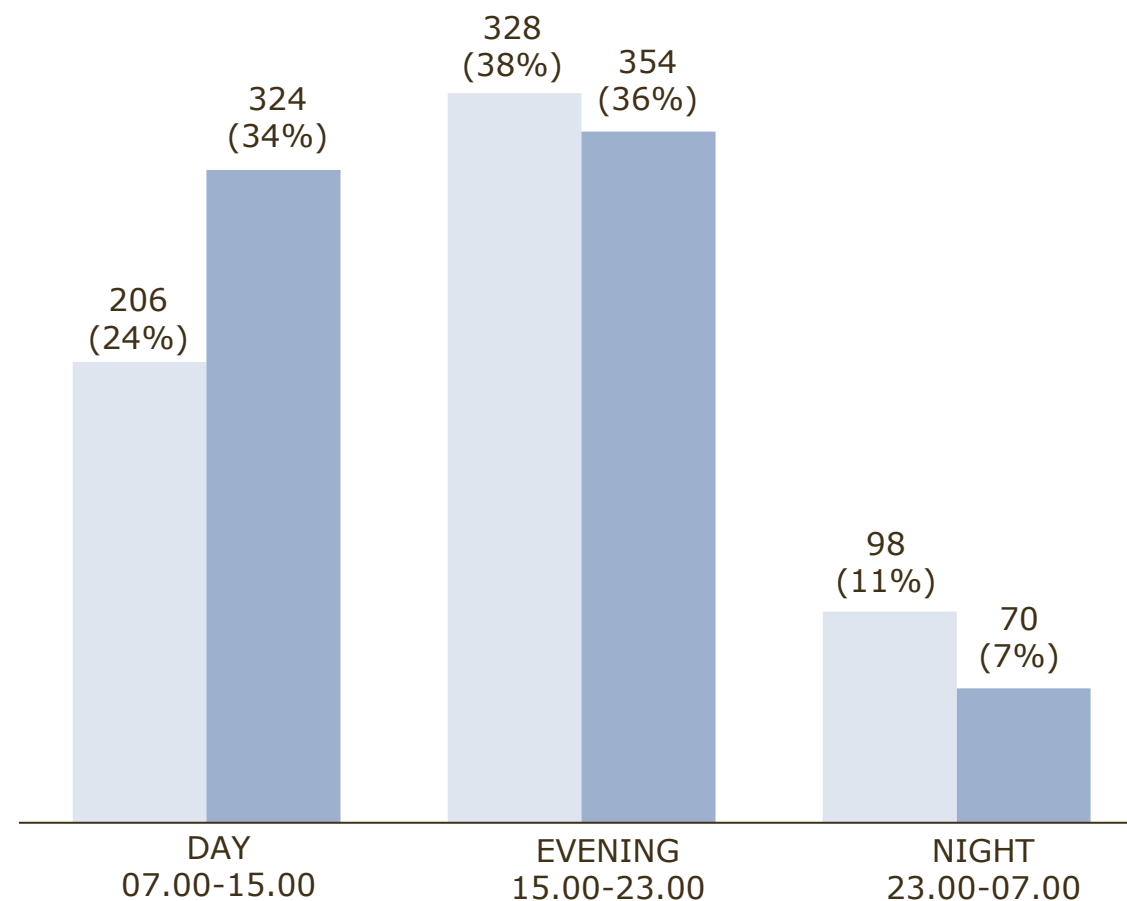
NUMBER OF GREEN PATIENTS
WHO ARE OPERATED IN THE NIGHT BETWEEN 23.00 AND 07.00



Workload and work environment

Department of Neurosurgery Aarhus University Hospital

2019 - TOTAL NUMBER OF ACUTE SURGERIES = 870
2022 - TOTAL NUMBER OF ACUTE SURGERY = 978



Urgency Classification



Slots for patients with brain tumor



Cancellation reduced by 79%



Work environment





2

Ensuring prioritisation of acute surgical patients Regional Hospital Horsens



Share reflections

What have you heard?

What are your own
experiences?

Share your reflections
two-and-two

5 minutes

Black Friday 2018

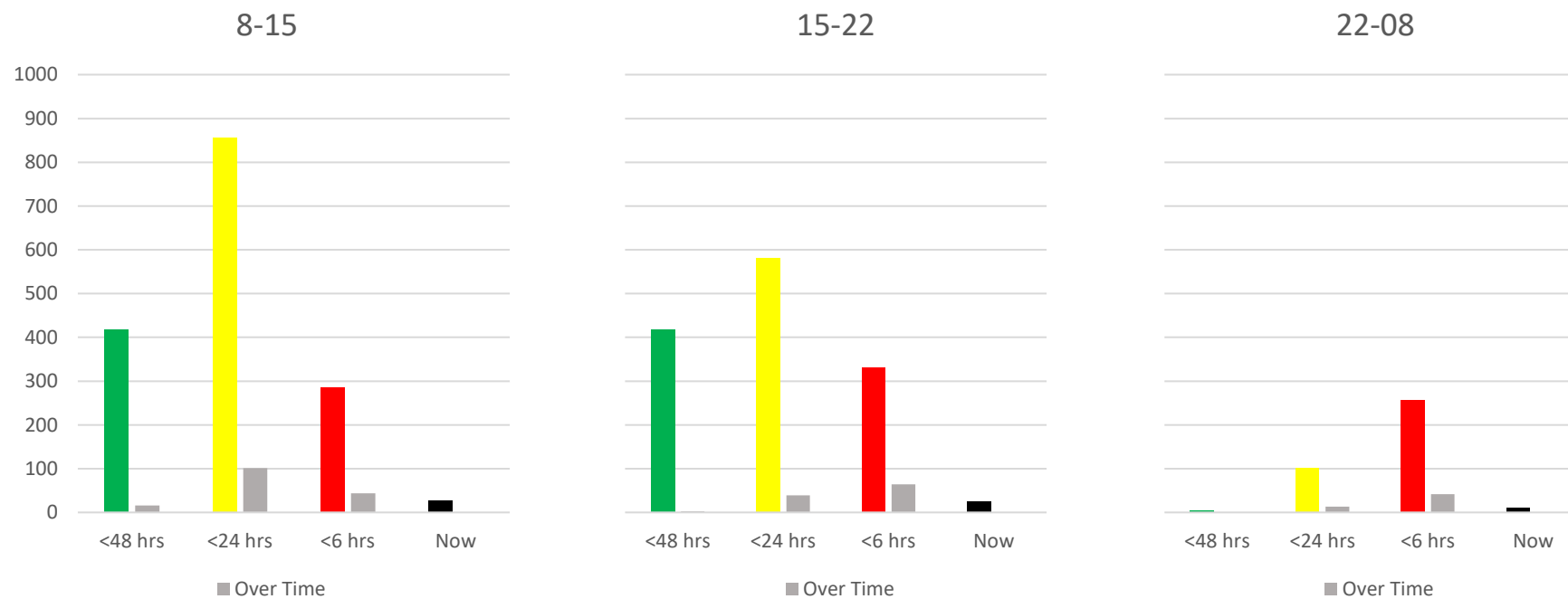




- Urgency classification
- Mapping our population
- Upgraded acute capacity

One year with urgency classification

Aarhus University Hospital: May 2022-23



92% operated on time

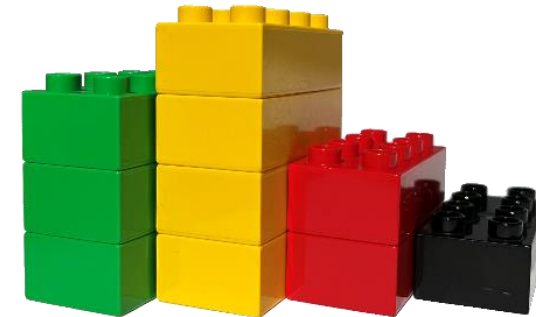
Mapping your population

Waiting time – from decision to incision

	Waiting time, hours
Green < 48 hrs	9.8
Yellow < 24 hrs	6.2
Red < 6 hrs	2.7
Black, immediately	1.2

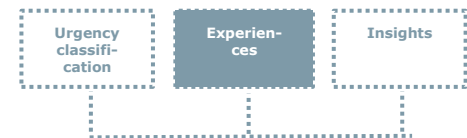
Challenges and gains

- Registration and validation
- Common language
- Capacity planning



3 Mapping your population Viborg Regional Hospital

[https://region-
midtjylland.23video.com
/secret/85405877/25e7
57b30022b863cee5a632
6e41b2e5](https://region-midtjylland.23video.com/secret/85405877/25e757b30022b863cee5a6326e41b2e5)



Share reflections

What have you heard?
What are your own
experiences?

Share your reflections
two-and-two

2 minutes

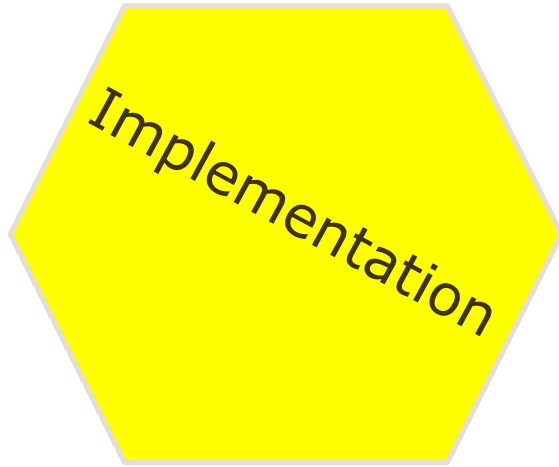
INSIGHTS





"Life in the
green box"

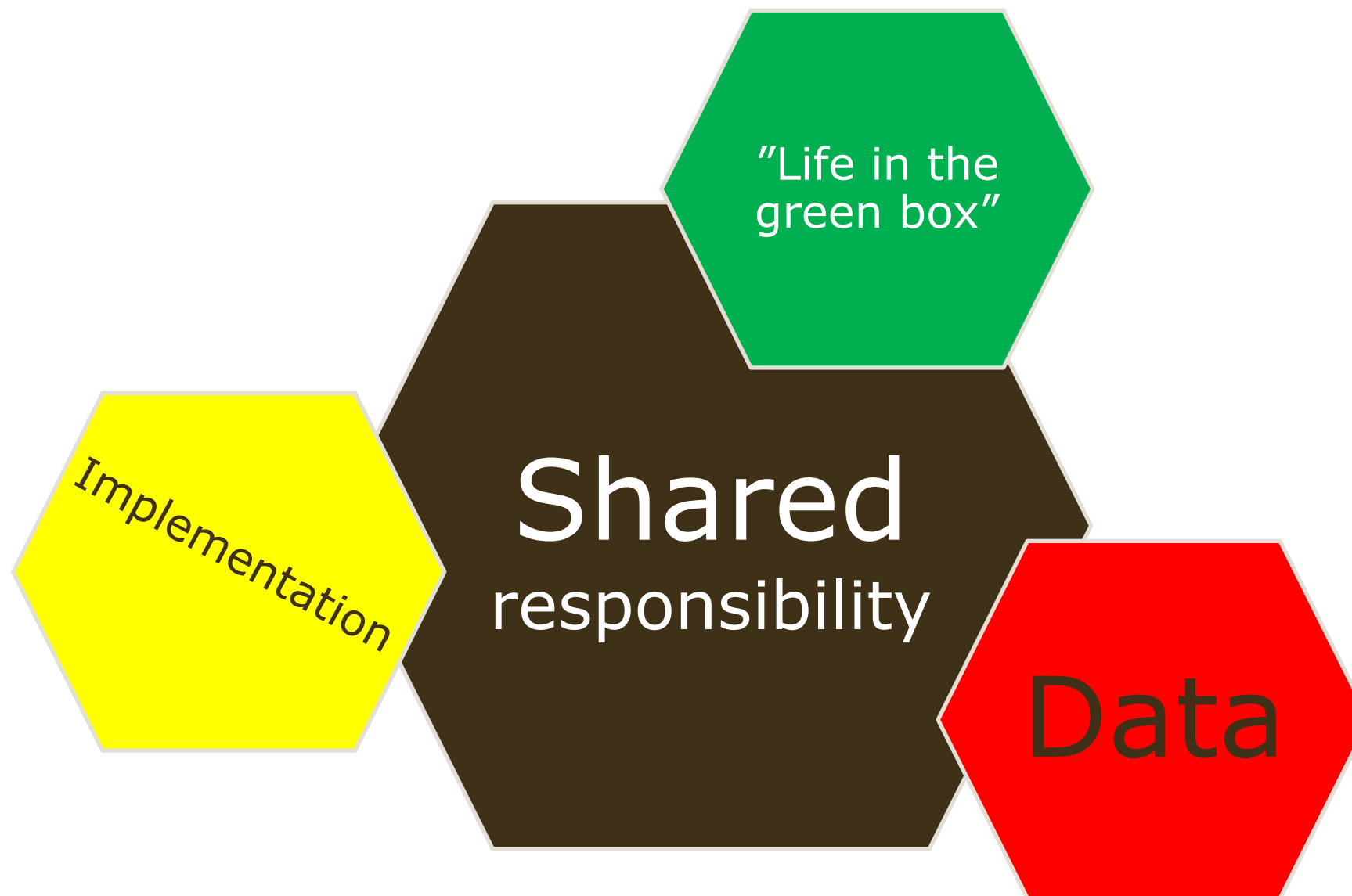
- All patients are equally important



- "The big why" – triage is meaningful



- Real-time data
- Validity
- From data experts to clinicians



Take home messages

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We have only just begun...



Data for capacity planning



Structured rounds in the wards



Urgency classification for radiology







THANK YOU!

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