

NSFS XX CONFERENCE

LEAD THE WAY

Challenges with Implementing New
Lead Shielding Guidelines

Olivia Hjertø and Helene Mork - Knudsen

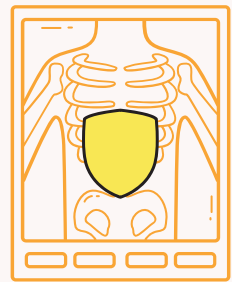
The Paediatric Radiology Department at Haukeland University Hospital in Bergen.

BACKGROUND

2019 - American Association of Physicists in Medicine (AAPM) recommendations:



Shielding offers minimal benefit

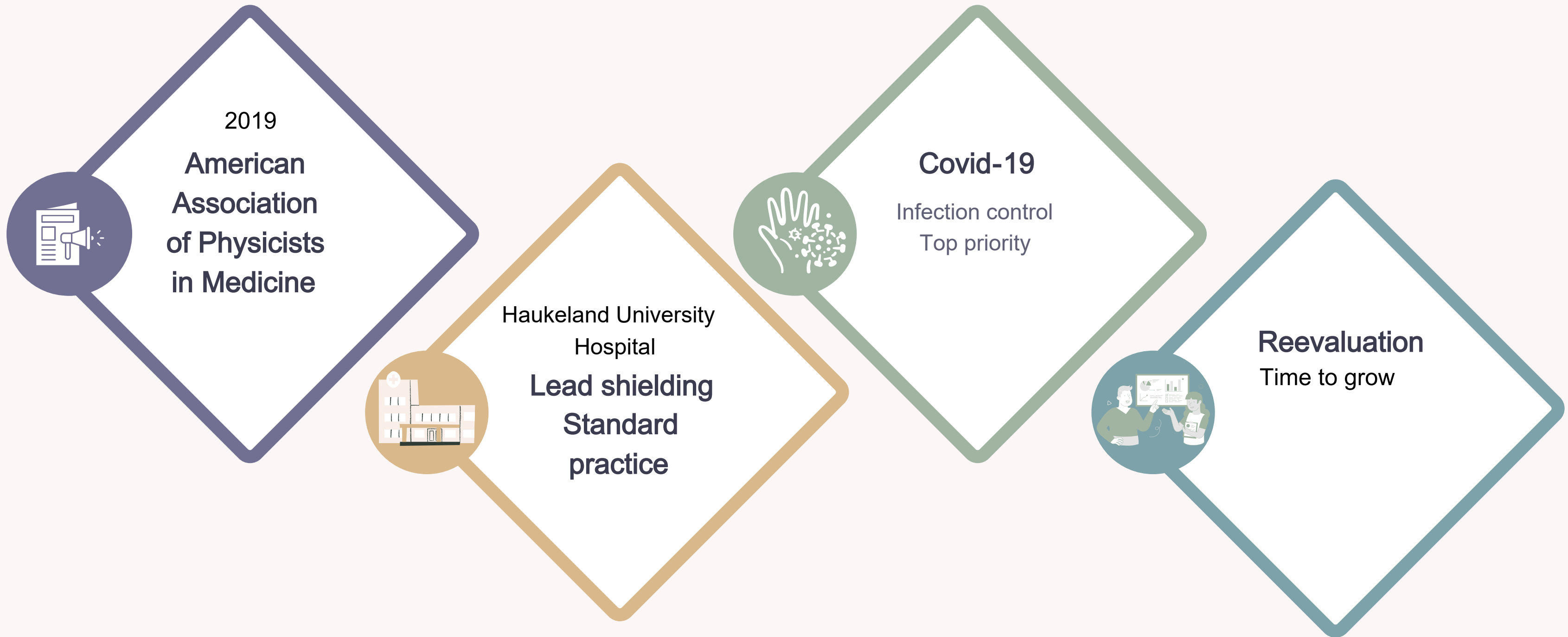


Interfere with automatic exposure control



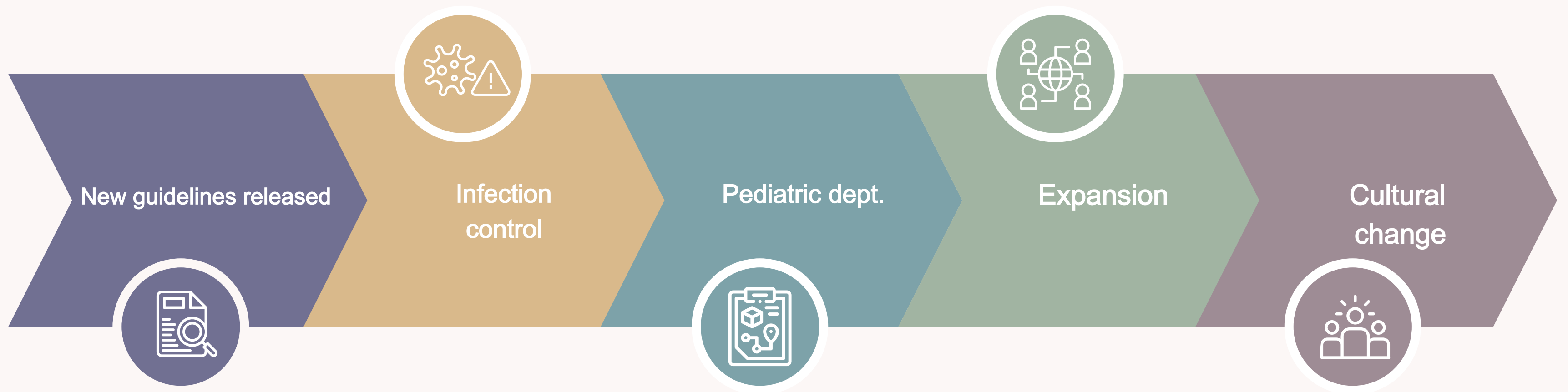
Increase radiation dose in some cases

OUR STARTING POINT



IMPLEMENTATION JOURNEY

Technical change- cultural transformation

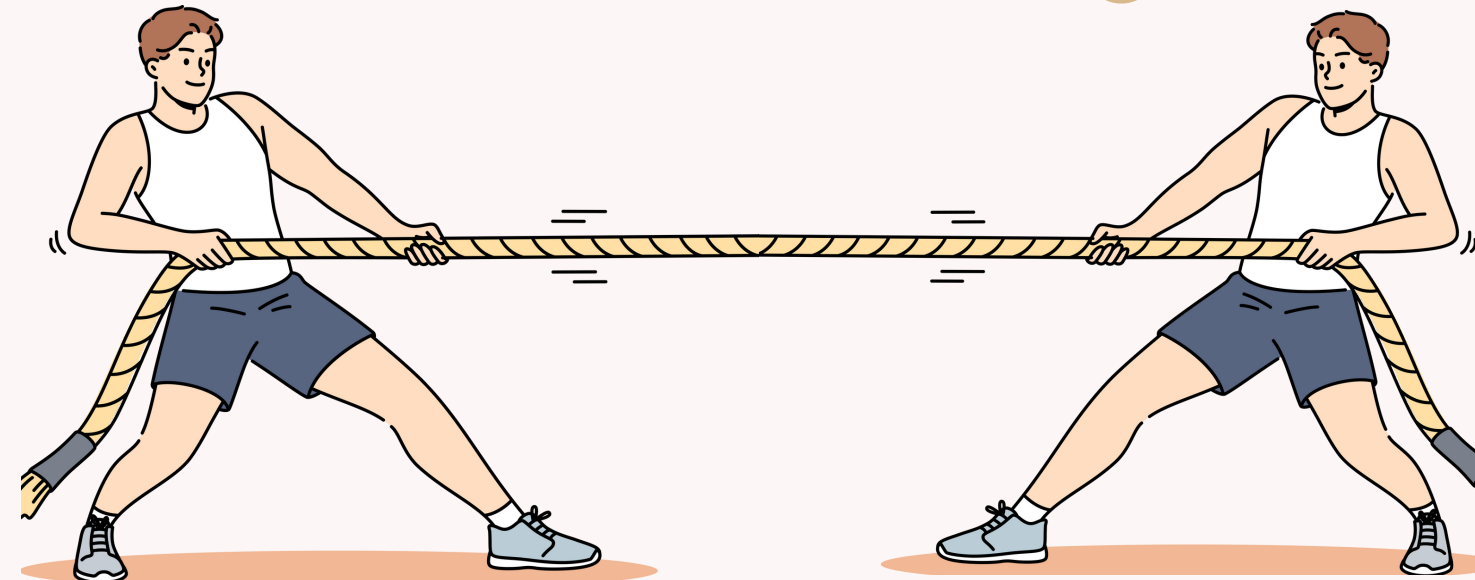


CHANGE MANAGEMENT IN HEALTHCARE

Established routines



Staff resistance



Staff Involvement



Clear communication
Patience
Peristence
Knowledge

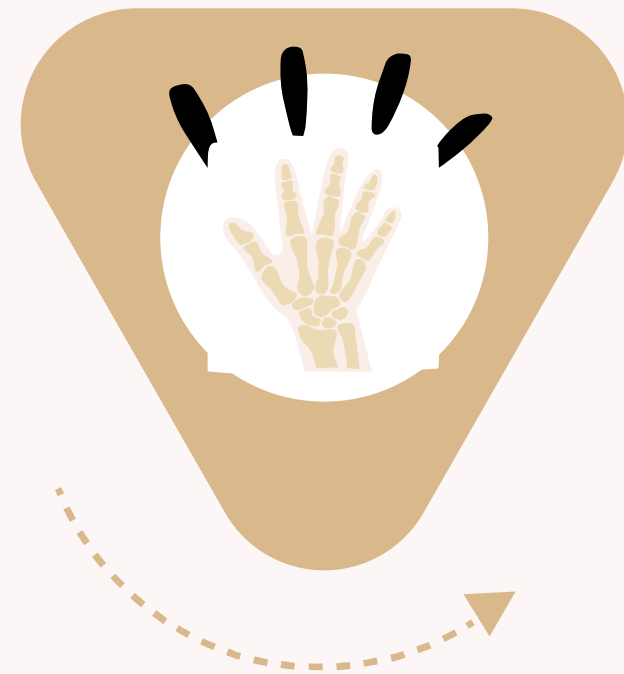
OUR EXPERIENCE

WHAT WORKED & WHAT *DIDN'T*



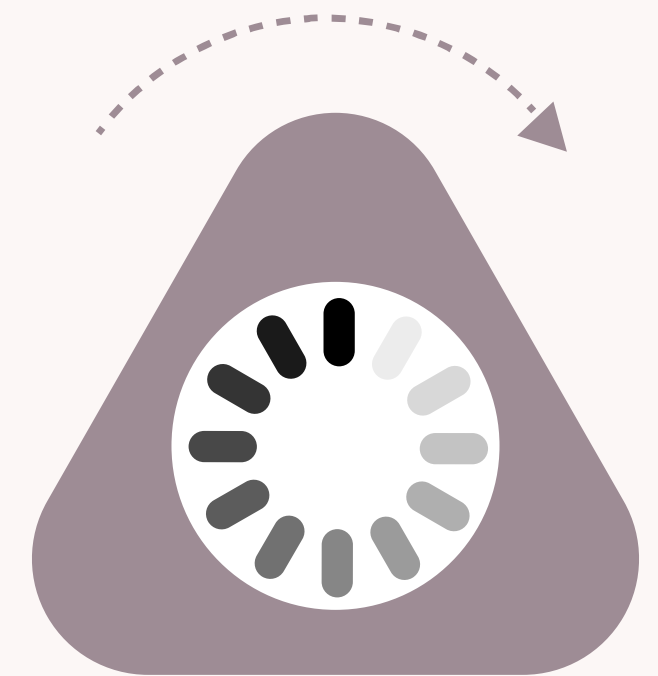
Eliminated
leadshielding

Some staff
remain uncertain



Change takes
time

Shifting attitude
and habit



Still ongoing

SURVEY FINDINGS

Insights from local survey with 30 participants



Attitude

In general positive attitude



Most usefull initiative

Internal teaching
Spesific example
Flow chart
Pasient brochure
Note in guideline
Conversation w/
physicist



Tough Takes

Lead protection and information to next of kin,

Pediatric leadshielding guidelines

Pregnant patients
Pregnant entourage



Previous Guideline

Some want to use the previous guidelines



Confidence

Generally confident in own knowledge

Despite that, the majority still want more internal teaching



Next of kin skepticism

Experienced some degree of skepticism

REFLECTIONS & FUTURE DIRECTIONS



Clinical culture change

How long does it take?



More research needed

Implementing and sustain changes



Document & share

We have to learn from each other



Knowledge is key

Knowledge brings confidence and security



Continue communication

Make colleagues feel secure in guidelines by making it safe to ask





Lead the way

Challenges with implementing new lead shielding recommendations

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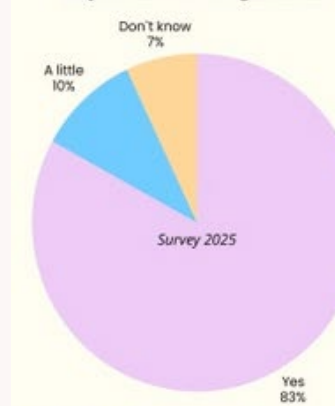
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Introduction

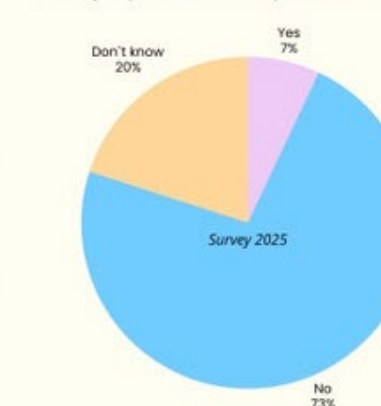
- AAPM's updated lead shielding recommendations [1] introduced significant clinical challenges.
- Haukeland University Hospital began revising shielding practices during the COVID-19 pandemic.
- The transition started in pediatric radiology and expanded department-wide.
- Despite efforts - some staff discrepancies and resistance persist in 2025:



Do you trust the new guidelines?



Would you prefer to still use patient lead shielding?



Other key findings:

37% find it challenging to inform patients or caregivers about the new shielding recommendations.

80% want more frequent training in radiation protection.

The most preferred learning methods are internal teaching and dose comparisons with background radiation.

Objective

To describe the experiences and challenges encountered during the implementation of AAPM's updated lead shielding recommendations in a Norwegian radiology department.

Methods

In 2020, the department began revising shielding practices based on AAPM's guidelines, starting with pediatric radiology. Internal protocols were updated, and patient communication materials were revised to support the transition away from routine patient shielding. General shielding recommendations were also revised. In May 2025, a departmental survey of 30 staff members was conducted to assess attitudes toward the changes.

Results

Lead shielding was removed for patients, and new internal guidelines were introduced. However, inconsistencies remain, and some staff still express uncertainty. Survey results show 17% of staff are unsure or lack trust in the new guidelines, and 27% are unsure or prefer to continue shielding. Staff report challenges in patient communication and a strong need for more training. The transition remains ongoing after five years.

Conclusion

Changing radiation protection practices is a slow and complex process, often involving a significant cultural transformation. This experience highlights the need for persistence, collaboration, and further research into implementation challenges in similar settings in Norway.

