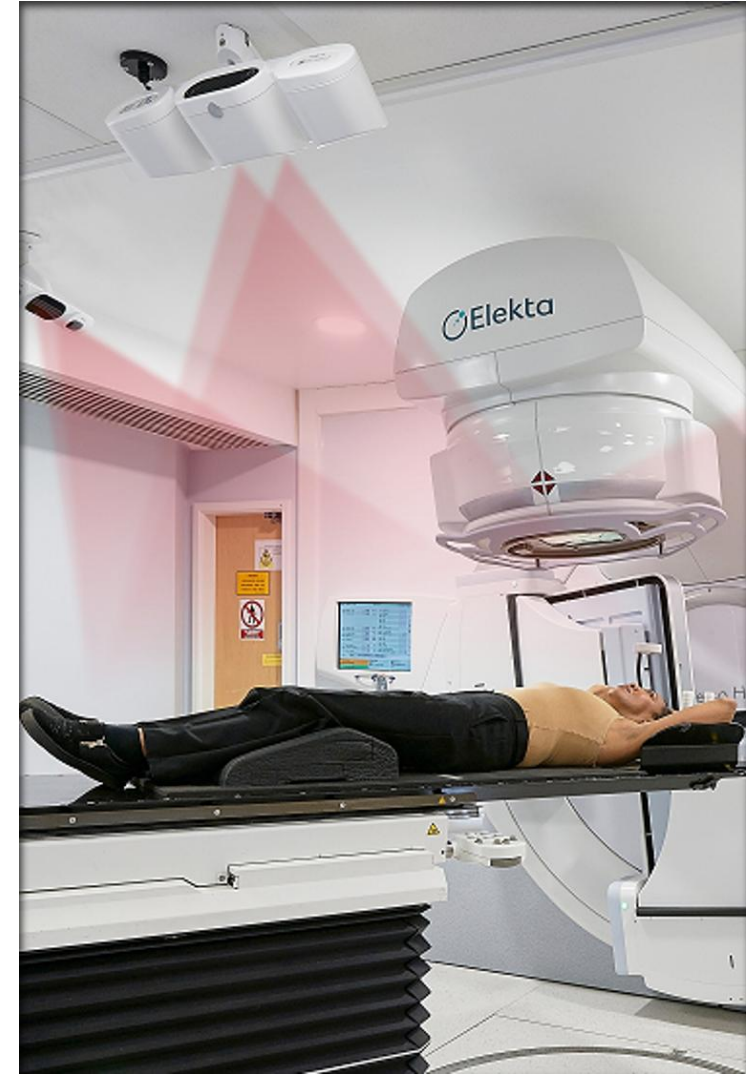


Implementation of DIBH (deep inspiration breath hold) for Mediastinal Lymphoma using SGRT

Jayne Fletcher



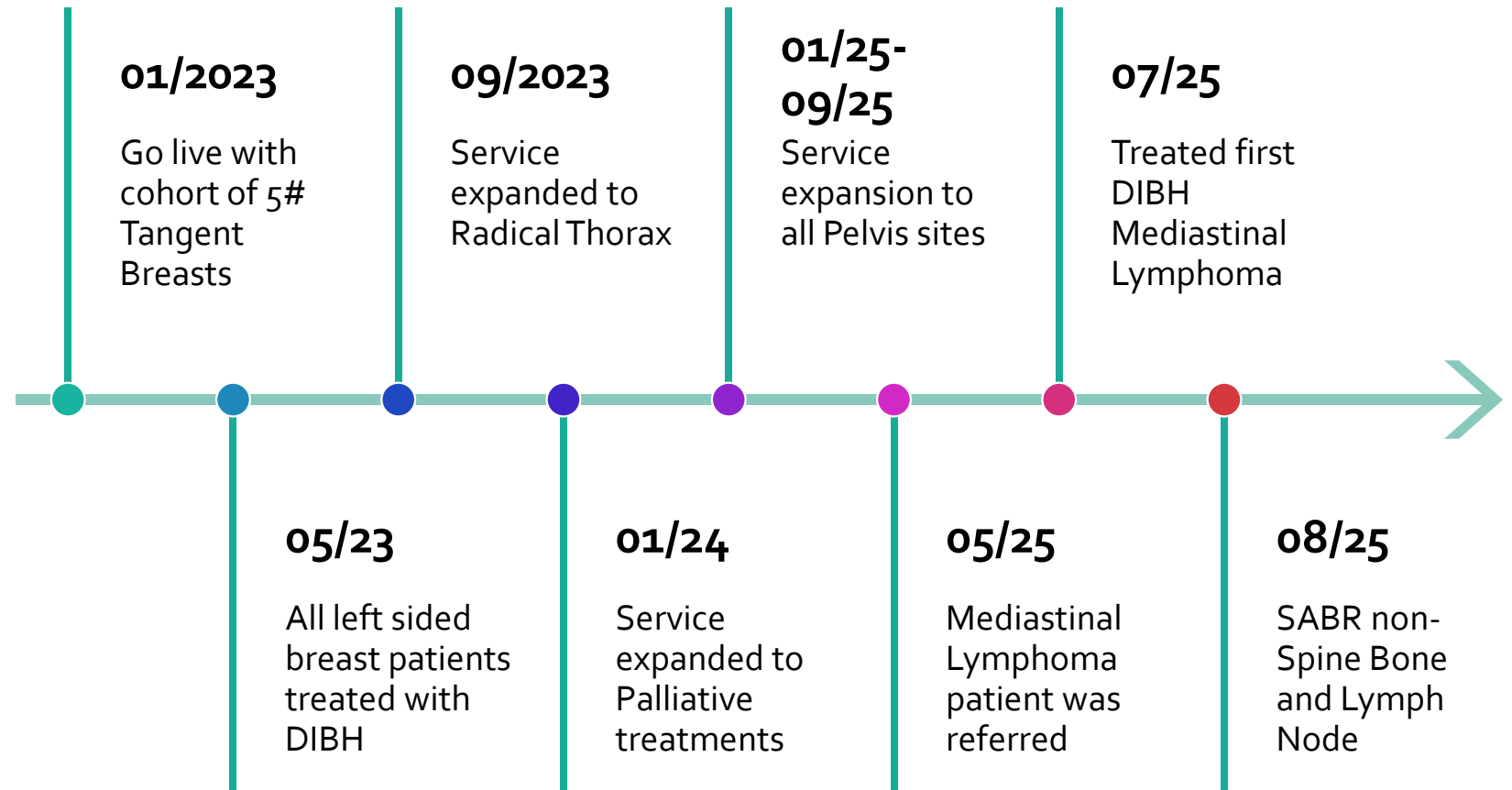
Rosemere Cancer Centre overview

- Based in Preston, Lancashire
- 8 Elekta Linacs, 2 Harmony, 4 Versa HD and 2 Evo
- Treat up to 215 patients per day
- Both CT scanners and all Linacs have SimRT or AlignRT installed
- All SGRT systems were funded by our charity the Rosemere Cancer Foundation

Background

- Clinician led discussions started in 2022
- Initial plan was to use Elekta A.B.C (Active Breathing Coordinator)
- March 2025 our clinician referred a patient

Brief timeline of SGRT rollout at Rosemere Cancer Centre



Why choose SGRT for Mediastinal Lymphoma in DIBH?

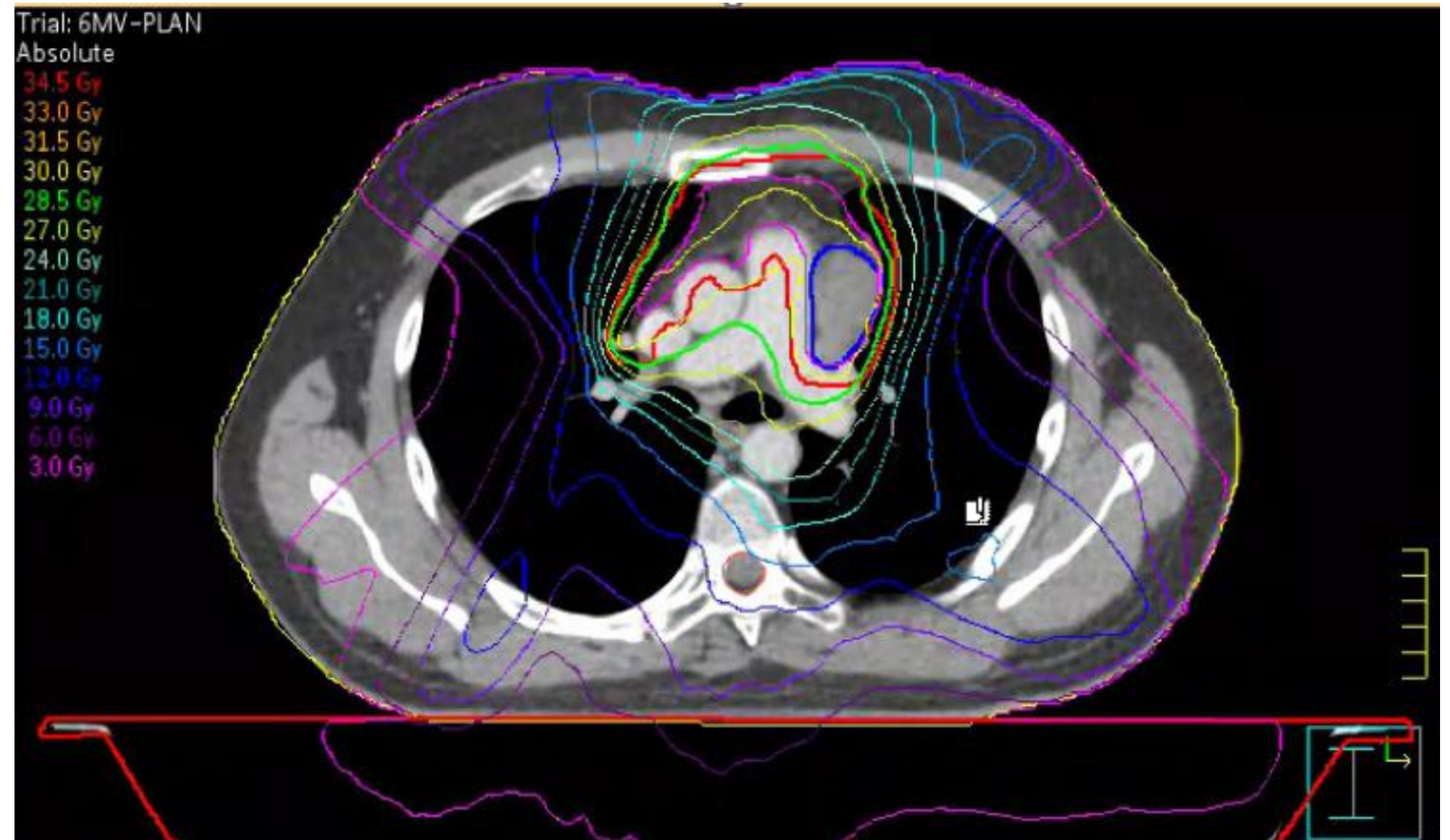
- 2 options available Elekta ABC (active breathing coordinator) or AlignRT SGRT
- ABC is used infrequently whereas SGRT is in daily use
- ABC is time consuming to coach, treat and reduces linac capacity
- ABC is a good tool for those who can't manage voluntary breath hold



What did we need to do?

- Consider patient immobilisation
- Adapt DIBH instructions for patients
- Create quality system documents
- Think about pre-emptive SGRT troubleshooting
- Define a suitable ROI and consider occlusions
- Assess workflow and image quality

Anterior and 2 post oblique arcs



On treatment

Once on treatment we noticed the ROI had occlusions due to the nature of butterfly arcs.



CBCT image quality



Future learning

- Standard immobilisation will be a wingboard
- SimRT cameras may not catch a breathing trace
- ROI adaptation- can we find a standard?
- Staff more confident and can adapt to the change
- Expansion of DIBH with SGRT to other sites
- Audit imaging data

Thank you

Just to say thank you to all staff at Rosemere Cancer Centre.

For any further information please contact

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Lancashire Teaching Hospitals 
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