

Putting the AYR into chest

drain education: Pleural Procedure

Workshops delivered in a DGH on Scotland's West Coast

Dr Rebecca Jarrott¹, Zoe Strachan², Dr Sagara Dissanayaka¹, Dr Anur Guhan¹

Aim & Background

This project describes work in Ayr Hospital (UHA). UHA is a small DGH where doctors, previously trained in larger centres, arrive with limited experience of pleural procedure skills.

Our aim was to design, evaluate and deliver structured context specific training intervention to assess the following domains

- procedure skills
- decision making
- patient safety

Methods

Annually since 2016, senior respiratory physicians have delivered simulation-based pleural procedure training programmes open to all doctors working in UHA.

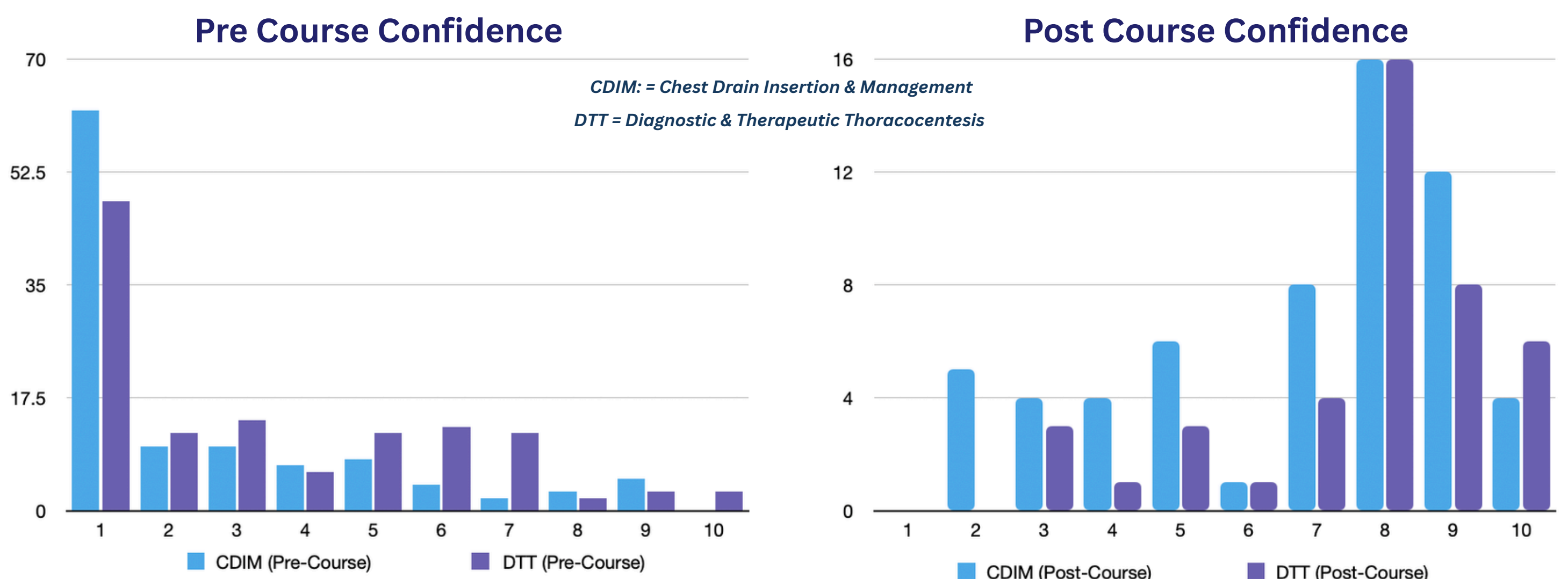
The courses combined theoretical teaching with simulation-based thoracentesis & chest drain insertion management (CDIM) with emphasis on out-of-hours decision making.

Pre & post course surveys were sent to participants to assess prior experience, confidence and clinical knowledge in a variety of scenarios.

Between 2023-2025, 78 clinicians attended. Analysis of survey results identified large improvement in confidence with statistically significant and educationally meaningful outcomes as demonstrated below.

Results

Figure 1 Comparing Pre and Post-course Confidence



Discussion

Analysis of combined 2023 & 2025 data comparing self reported pre and post course confidence (10 point likert scale) identified median confidence improvements below (as detailed in figure 1)

- CDIM improved by 3.18 (2.59-5.77) (p<0.001).
- DTT improved by 2.20 (3.46-5.67) (p<0.001)

Effect size analysis demonstrated large educational impacts across all procedures

Conclusion

This project highlights the unique educational value of delivering training in smaller hospitals, exemplifying how such settings facilitate practical opportunities often less available in larger sites.

We have demonstrated how structured, locally delivered programmes can address unmet knowledge gaps to improve procedural competence, decision making and support safer respiratory care via scalable local training.

For further information please contact rebecca.jarrott@nhs.scot