Introduction of new immobilization device in radiotherapy-postoperative whole breast irradiation in prone position

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Breast Cancer Facts

- Most frequent cancer in women
- Leading cause of death among malignants in women
- 4000 new cases reported annually in Serbia
- 1500 deaths reported annually in Serbia

Positioning breast patients

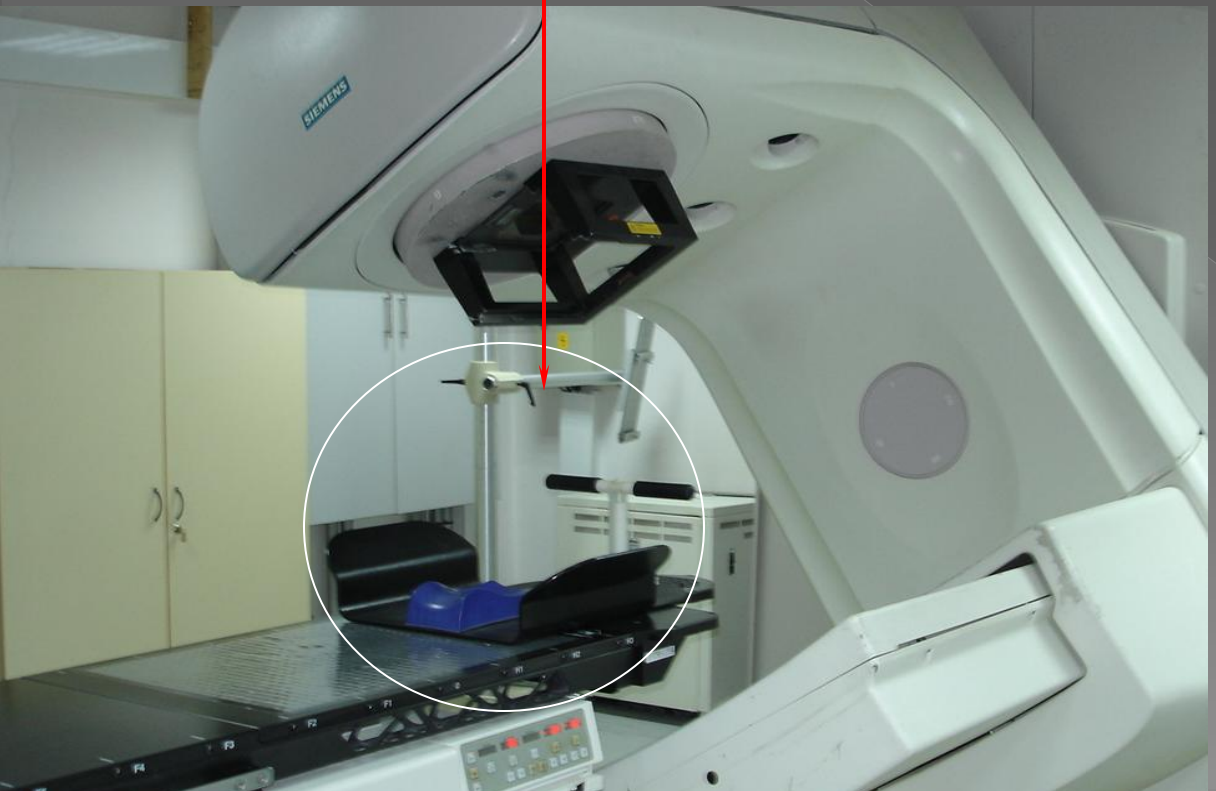
- Tangential radiation in supine position
- Breast radiotherapy in lateral decubitus position
- Breast radiotherapy in prone position

In last decade great step in RT is made in area of

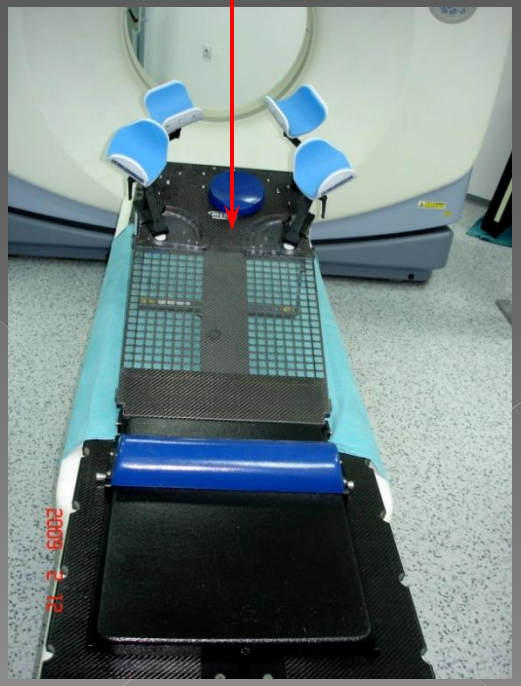
IMOBILIZATION

better reproducibility and patient comfort

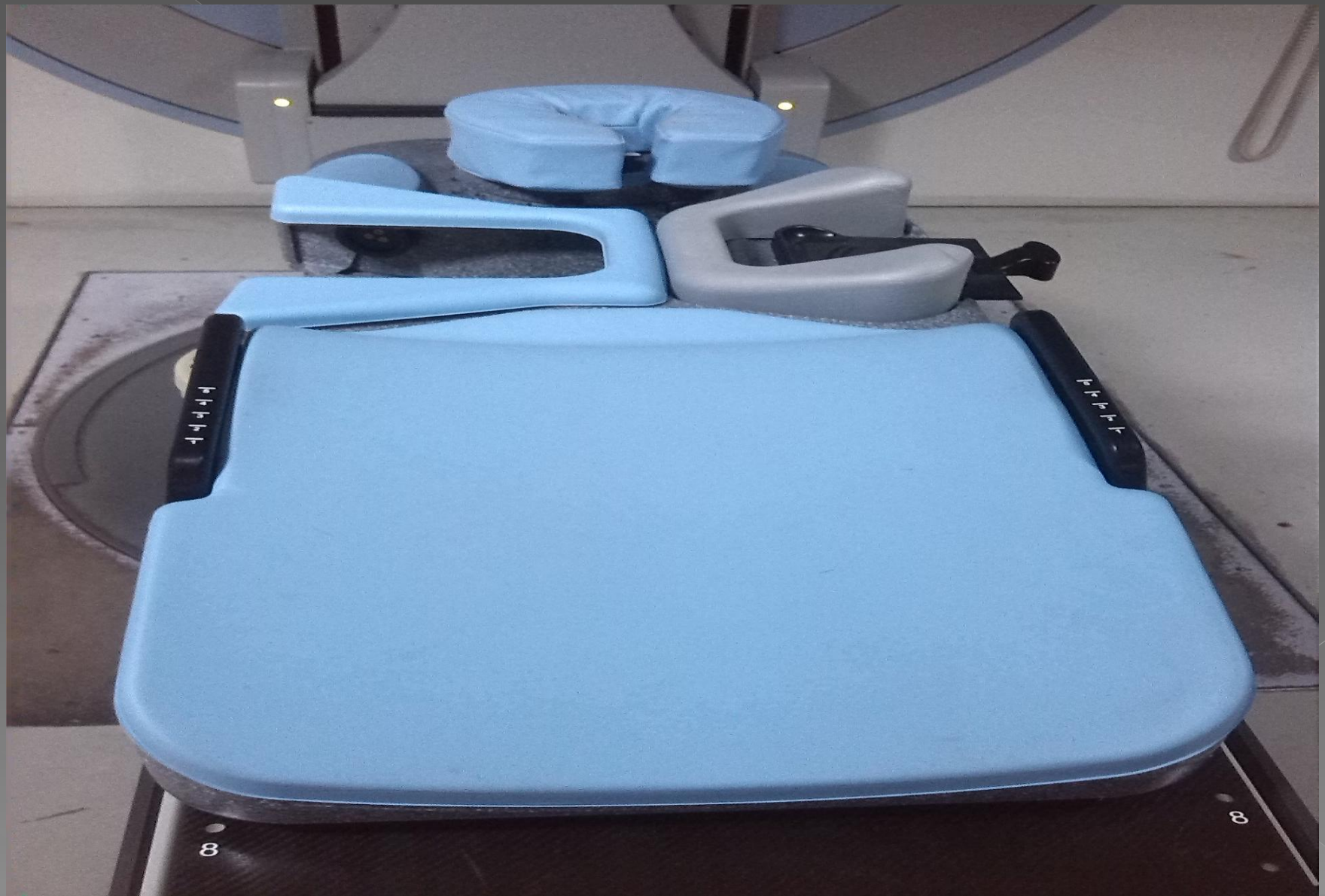
Extended Wing Board



Breast board



New Horizon™ Prone Breastboard



Why treat breast cancer in the prone position?

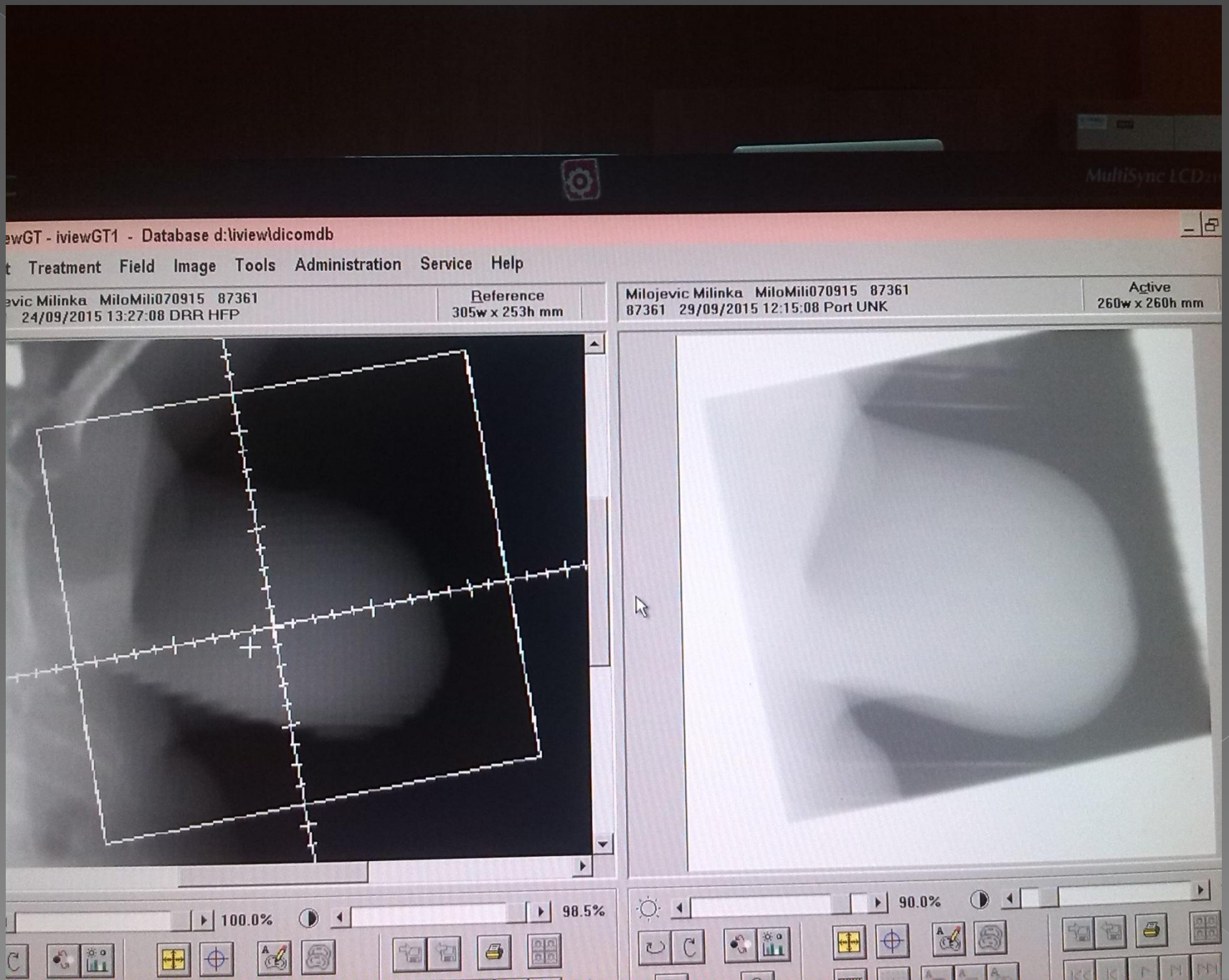
- For large pendulous breasts
- Position may be difficult for elderly or obese patients/patients with good general condition
- Reduction in lung and heart dose
- Good to excellent cosmetic results

The Prone Breast Simulation Process

- Position the patient in the most comfortable and reproducible setup possible.
- using a three point system.
- CT scan patient.
- Record all positioning parameters.

Radiotherapy treatment

- Prone position is special approach in treatment of breast
- Use of tangential beams while patient Is lying on stomach on special immobilization platform
- Treated breast is positioned trough “hole”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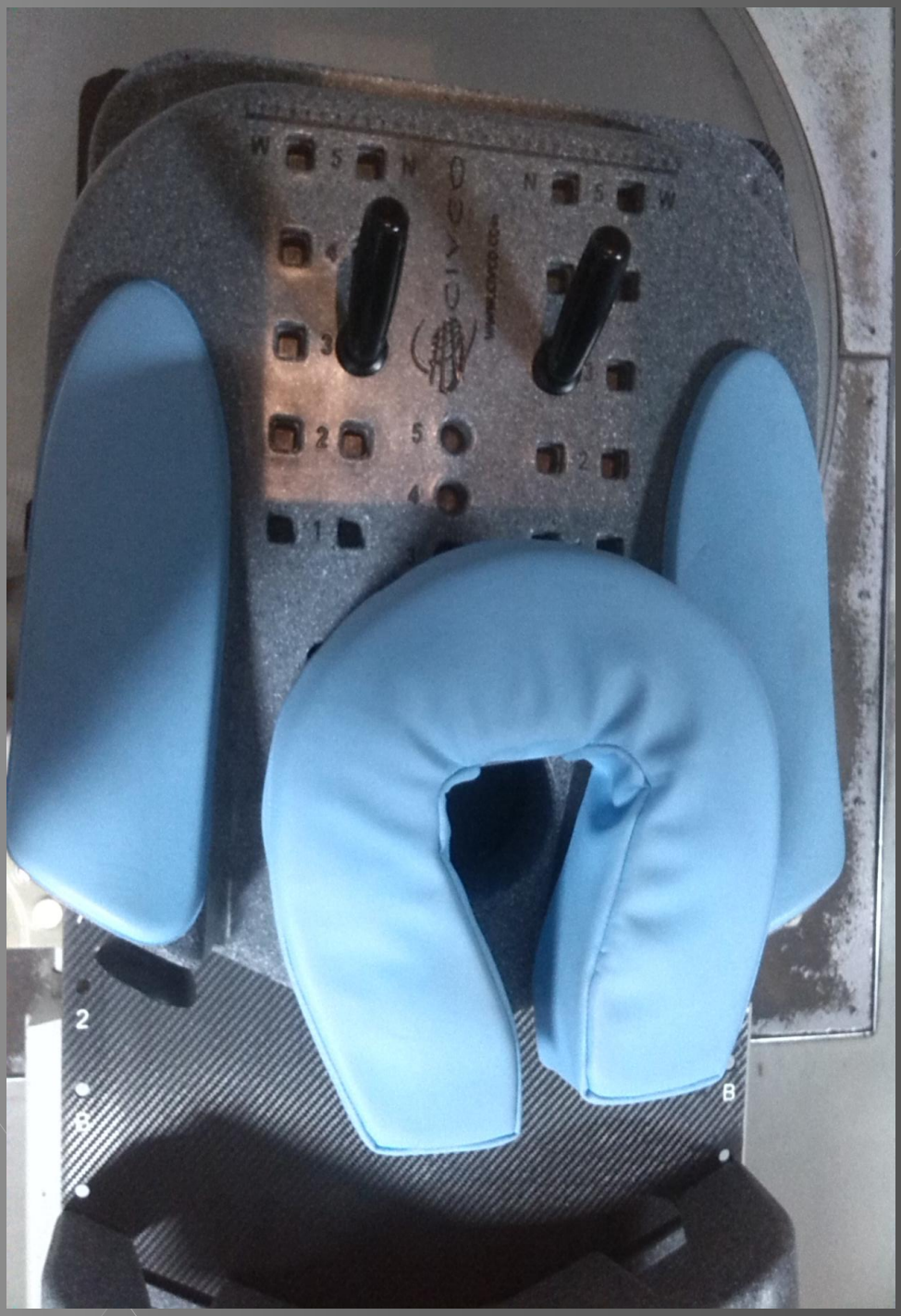
Pros & Cons

- Pros:
- Reduction in hearth and lung dose
- Good for left breast
- Minimal respiratory movements
- Good to excellent cosmetic results
- Minimum side effects

Cons

- Physically demanding for elderly patients
- Original head rest is not suitible for short and overweight patient- they have short neck
- Shins “hang” – extra knee rest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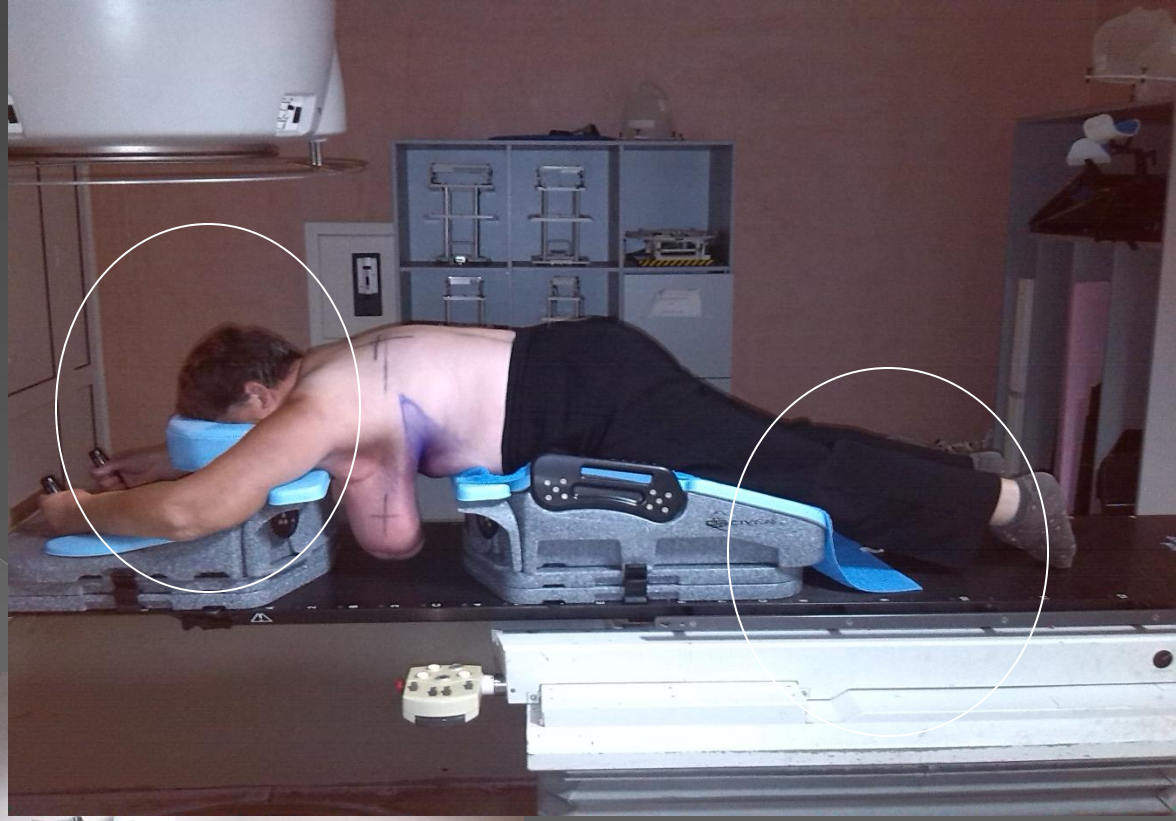

Conclusion

- prone breast system provides an innovative solution and solid platform for treating large breasted women in the prone position.
- Prone breast radiotherapy techniques are technically complex. They require expertise in simulation, immobilization, planning and treatment delivery.
- Our data shows a decrease in tissue heterogeneities, reduced lung, heart and normal tissue volumes.