

Total Body Irradiation (TBI)

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PATIENT HISTORY

- 20 year old Caucasian male with Acute lymphoid leukemia

Treatment Prescribed

- 1400cGy total body irradiation
- 8 bid fractions
- 4 days

*Part of a preparatory regimen combined with chemotherapy before a bone marrow transplant.

Summary

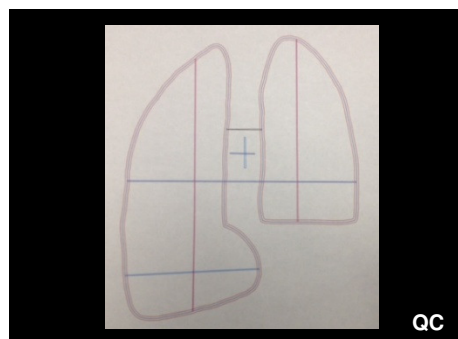
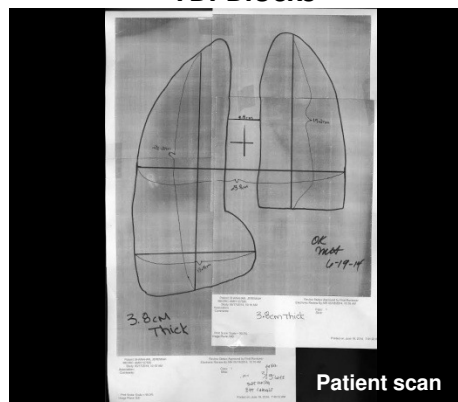
- 3 fractions were treated with blocking in AP/PA format with lung and liver blocking followed by 5 fractions using right and left lateral fields without blocking

- The net dose from all 8 fractions to lung and liver equaled the prescribed shielded dose of 1000cGy

Patient outcome

- Patient received bone marrow transplant a few hours after last irradiation fraction
- Continues to do well
- No evidence of disease or graft versus host (GVH) reaction

TBI Blocks



.decimal TBI creation process

- Clinic set-up
- Send .decimal patient scan
- Precision machining of TBI block mold
- Cerrobend poured into mold and cured
- Quality Check blocks (+/-2mm)
- Shipped within 1-2 days of order placed

Unique features of TBI

1. No sparing of "sanctuary" sites
2. Dose homogeneity to the whole body
3. Less chance of cross-resistance with other antineoplastic agents
4. No problems with excretion or detoxification
5. Ability to tailor the dose distribution by shielding specific organs or by "boosting" sites

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