-defined RT dose volume constraints. The credentialing requirements, and generate RT plans that meet protocol-goal is to reduce protocol deviations and provide
be credentialed to demonstrate that physics staff have
read the protocol, meet specific technology
institutional feedback to correct unacceptable variations

1A) contouring with DVH plan evaluation. An institution must
patients are randomized to observation (Arm 1B)
arm surgery is randomized to whole breast RT (Arm
lymph nodes (ypN0) after NC. Patients following
clinical trial evaluating regional nodal (RN) radiotherapy
NSABP B-51/RTOG 1304 is a randomized phase III
Purpose:
Coverage of supraclavicular, axillary, and internal
mammary nodes in the first 3 intercostal spaces.
IROC Houston’s website. RN RT includes dose
mastectomy chestwall and RN RT downloaded from the
institution group trial evaluating breast cancer RN RT,
neoadjuvant chemotherapy (NC) who convert to negative

Purpose:
NSABP B-51/RTOG 1304 is a randomized phase III
clinical trial evaluating regional nodal (RN) radiotherapy (RT) in patients with positive axillary nodes before neoadjuvant chemotherapy (NC) who convert to negative axillary nodes (ypN0) after NC. Patients following lumpectomy are randomized to whole breast RT (Arm 1A) v breast and RN RT (Arm 2A); and post-mastectomy patients are randomized to observation (Arm 1B) v chestwall and RN RT (Arm 2B). This is the first multi-institution group trial evaluating breast cancer RN RT, requiring 3DCRT or IMRT treatment plans based on CT contouring with DVH plan evaluation. An institution must be credentialed to demonstrate that physics staff have read the protocol, meet specific technology requirements, and generate RT plans that meet protocol-defined RT dose volume constraints. The credentialing goal is to reduce protocol deviations and provide institutional feedback to correct unacceptable variations before patient enrollment.

Method:
Credentialing includes completing a Facility Questionnaire and developing 3DCRT and/or IMRT treatment plan for 3 CT benchmark cases for: Arm 1A – breast RT only; 2A – breast and RN RT; and 2B – post-mastectomy chestwall and RN RT downloaded from the IROC Houston’s website. RN RT includes dose coverage of supraclavicular, axillary, and internal mammary nodes in the first 3 intercostal spaces.

Method (cont’d):

The following are the most common areas of failure for the 1A:

- Lung_IPSI (Lung IPSI rec’d 20Gy)
- PTV_WB_EVAL (Volume of PTV WB)
- PTV_EVAL_BREAST (Max dose w/in PTV WB)
- PTV_EVAL_Breast (Max dose w/in PTV WB)
- Lung_IPSI (Lung IPSI rec’d 20Gy)
- PTV_EVAL_BREAST (Volume of PTV WB)
- PTV_EVAL_Breast (Max dose w/in PTV WB)

The following are the most common areas of failure for the 2A:

- PTV_Axilla (Volume of PTV WB EVAL rec’d 62 Gy)
- PTV_Axilla (Max point dose w/in PTV_Axilla)
- PTV_EVAL_Breast (Max dose w/in PTV WB)
- PTV_EVAL_REC (Lung IPSI rec’d 20Gy)
- PTV_EVAL_BREAST (Dose to 50% of PTV WB)
- PTV_EVAL_BREAST (Volume of PTV WB EVAL rec’d 62 Gy)

The following are the most common areas of failure for the 2B:

- PTV_EVAL_BREAST (Dose to 95%)
- PTV_SCL (Dose to 95%)

Conclusions:
NSABP B-51/ RTOG 1304 credentialing prepares institutions for RT delivery to meet protocol requirements. This revealed Arm 2A, breast RT and RN RT has required resubmission most for institutions to meet protocol guidelines.

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