LDR CREDENTIALING PROCEDURES FOR PROSTATE IMPLANT PROTOCOLS
FACILITY QUESTIONNAIRE

I. **Radiation Oncology Facility:**

RTF#: _____ RTOG #: _____

Facility Name: _____

Address: _____

_____

_____

Is this Facility also known by other name(s)? If so, please provide:

_____

_____

PERSONNEL CONTACT INFORMATION

A. Radiation Oncologist Responsible for Implant Patients

Name: _____ Phone: _____

Address: _____ Fax: _____

_____ E-mail: _____

_____

B. Chair/Chief of Radiation Oncology

Name: _____ Phone: _____

Address: _____ Fax: _____

_____ E-mail: _____

_____

C. Physicist Responsible for Implant Patients

Name: _____ Phone: _____

Address: _____ Fax: _____

_____ E-mail: _____

_____

D. Dosimetrist Responsible for Implant Patients

Name: _____ Phone: _____

Address: _____ Fax: _____

_____ E-mail: _____

_____

E. Data Manager Responsible for Implant Patients

Name: _____ Phone: _____

Address: _____ Fax: _____

_____ E-mail: _____

_____

II. Experience of personnel:

A. For the Radiation Oncologist named above

How many ultrasound guided prostate implants have been performed? _____

Has this person been credentialed previously?

by IROC Houston? ☐ by IROC Rhode Island? ☐ date: _____

B. For the Physicist named above

How many ultrasound guided prostate implants have been planned using ultrasound? ____

How many ultrasound guided prostate implants have been evaluated with post implant CT?

Has this person been credentialed previously?

by IROC Houston? ☐ by IROC Rhode Island ?☐ date: _____

III. Equipment:

A. Ultrasound unit (vendor and model): _____

B. CT scanner (vendor and model): _____

C. Treatment planning system

Preplan or Realtime plan:

Vendor and version: _____

How are ultrasound images entered for planning? videotape ☐ digitized ☐

Other (explain): _____

_____

How are prostate and normal tissue contours entered?

Defined on planning system ☐ defined on ultrasound unit and input as above ☐

Other (explain): _____

_____

Is a point source approximation used? Yes ☐ No ☐

If yes, do you use an: anisotropy constant ☐ anisotropy factors ☐

If not, explain your procedures for determining and accounting for seed orientation.

_____

Post Implant Plan:

Vendor and version: _____

How are the CT images entered for post planning? CD ☐ tape ☐ optical disc ☐

digitized from hardcopy ☐ electronically via network ☐

Other (explain): _____

_____

How are prostate and normal tissue contours entered?

Defined on planning system ☐ defined on CT and input as above ☐

Other (explain): _____

_____

Dose calculation matrix resolution is_____mm x_____mm x_____mm.
(should be ≤2mm x ≤2mm x axial slice width)

Dose volume histograms calculated by computer? Yes ☐ No ☐

Dose volume histograms available as graphs? Yes ☐ No ☐

Dose volume histograms available as tables? Yes ☐ No ☐

How do you superimpose dose distributions on CT images? By computer ☐ By hand ☐
If by hand; describe technique: _____

_____

Is a point source approximation used? Yes ☐ No ☐
If yes, do you use an: anisotropy constant ☐ anisotropy factors ☐
If not, explain your procedures for determining and accounting for seed orientation.

_____

D. Radiation Sources:

^{125}I: Vendor/Model:_____Typical source strength/seed:_____
Vendor/Model:_____Typical source strength/seed:_____

^{103}Pd: Vendor/Model:_____Typical source strength/seed:_____
Vendor/Model:_____Typical source strength/seed:_____

E. Implant Technique: ___ Loose seeds (e.g., Mick applicator)
___ Disposable preloaded needles (seeds with spacers interspersed)
___ Stranded products or dissolvable sutures

IV. **Quality Assurance Procedures: (attach additional sheets if necessary)**

A. Source strength verification:

1. Dosimetry system used for in-house verification of seed activity:

   Vendor:_____ Model: _____

2. How is the calibration of this system directly traceable to NIST? (Attach copies of ADCL certificates)

   ☐ Dosimetry system calibrated by ADCL for each seed model seeking credentials

   ☐ ADCL calibration of a seed that is used to assign your calibration factor

   ☐ An approved nuclear pharmacy for seed assay (provide pharmacy name, contact and phone#)

3. Explain your QA procedures to verify the constancy of the calibration of the dosimetry system.

4. How frequently are the QA procedures in item 3 performed? _____

5. Select your measurement technique to verify seed strengths used for individual patients.

   ☐ Use the NIST traceable dosimetry system described in item 1.

   ☐ An approved Nuclearpharmacy is used for seed assay

   Number of seeds assayed per patient:_____% or____seeds

   What is your criterion for agreement with the vendor? +/-5% ☐, +/-7% ☐, +/-10% ☐,

   Other (explain) _____

   _____

6. What seed strength is used for treatment planning?

   your own or pharmacy measurements ☐ vendor ☐

   Other (explain) _____

B. Source accounting:

1. Are radiographs taken at the completion of the implant? Yes ☐ No☐

   If yes: AP ☐ lateral ☐ oblique ☐ stereo ☐ other: _____

2. Describe procedures used to account for all seeds at the time of implant:

3. Describe techniques used to identify seeds and avoid identifying the same seed on multiple CT slices:

4. What is the discrepancy limit for unaccounted seeds and what action do you take if the discrepancy exceeds the limit?

C. Other dosimetry and QA procedures:

1. Describe any calculations done at the time of commissioning to verify the accuracy of the computer generated treatment plan:

2. Describe your method for ensuring that the dosimetric parameters you use are consistent with

   i) the NIST calibration of the source, and

   ii) your calculation method (point source vs. line source):

   Describe any other procedures followed to assure that the dose calculations are in accordance with the requirements of the protocol:

3. Describe any other quality assurance procedures pertinent to these brachytherapy procedures: