1. Purpose

1.1. This procedure establishes the fluoroscopy exposure monitoring and reporting requirements for all UConn Health radiological imaging services.

1.2. This procedure outlines the process for reporting patient fluoroscopy exposures to the Office of Radiation Safety (ORS). It also defines when peak skin and/or fetal dose estimations are required. It also defines when patient follow-up is required based on peak skin and/or fetal dose estimations.

2. Applicability

2.1. This procedure applies to all fluoroscopy procedures performed at UConn Health and affiliated services.

3. References

3.1. NCRP Report 168
3.2. Joint Commission PC.02.01.01, EP 30
3.3. Stecker et al., Guidelines for Patient Radiation Dose Management
3.4. Centers for Disease Control and Prevention, Cutaneous Radiation Injury

4. Precautions

4.1. None

5. Procedure

5.1. The performing physician or designee shall complete and submit Attachment I, “Prolonged Fluoroscopy Procedures/Pregnant Patient Notification Form” to the office of radiation safety whenever:

5.1.1. Fluoroscopy on time exceeds 60 minutes or,
5.1.2. Cumulative Air Kerma Area Product (PKA) exceeds 500 Gy·cm² (for 100 cm² field) or,
5.1.3. Cumulative Air Kerma at the Reference Point (Ka,r) exceeds 3 Gy or,
5.1.4. The patient is pregnant. This should be done on the day of the procedure.

5.2. ORS shall review the “Prolonged Fluoroscopy Procedures/Pregnant Patient Notification Form” to determine if a peak skin or fetal dose estimation is required.

5.3. If required, ORS will estimate peak skin dose (PSD) and/or fetal dose, determine if follow-up is required, provide that information to the
5.4. Patient follow-up guidelines include:

5.4.1. Estimated PSD > 3 Gy – follow-up at 2 weeks and 8 weeks.
5.4.2. Estimated PSD > 5 Gy – follow-up at 2 weeks, 8 weeks, and 6 months.
5.4.3. Estimated PSD > 10 Gy – follow-up at 2 weeks, 4 weeks, 6 months, and 12 months.

5.5. All estimated fetal dose calculations shall include a recommendation to track additional abdominal and/or pelvic radiation exposures for the duration of the pregnancy.

5.6. ORS will report the following metrics to the Radiation Safety Committee on a quarterly basis:

5.6.1. Number of procedures requiring PSD and/or fetal dose estimation.
5.6.2. Number of patients requiring follow-up.

_________________________________ ___________________
Kevin Higgins    Date
Radiation Safety Officer

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Dr. David Karimeddini    Date
Radiation Safety Committee Chair