

## **Title of Session / Talk**

Body MRI – Female Pelvis / Endometrial Carcinoma: Impact of MR on Management

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### **Highlights:**

- Revised 2009 FIGO Staging system for endometrial carcinoma.
- Pre-operative MR findings in patients with Stage I disease in combination with tumor grade and histology, classifies patients into low, intermediate or high risk for recurrence.
- Risk assignment in patients with Stage I disease guides treatment stratification and subspecialist referral.

**Title:** Endometrial Carcinoma: Impact of MR on Management

**Target audience:** This course is aimed at radiologists, imaging scientists and MR technologists who wish to review the impact of MRI on the management of patients with endometrial carcinoma, and understand how the reported MR findings ultimately stratify therapy.

**Outcome/Objectives:** Attendees will be able to report the pertinent imaging findings when staging patients with endometrial carcinoma, and understand the impact of specific imaging findings on the surgical management.

**Purpose:** To promote a better understanding of the role of MR imaging in managing patients with endometrial carcinoma.

**Discussion:** The prognosis of patients with endometrial carcinoma depends on a number of factors, including the Stage at initial presentation and the tumour histology. The depth of myometrial invasion, cervical stromal invasion and nodal status all contribute to the 5-year survival. Prognostic factors with respect to tumour histology include tumour grade, cell type and the presence or absence of lymphovascular space invasion.

Information about tumour grade and cell type are typically available at the time of D&C, but there is frequent discordance with the final surgical pathology as only a small portion of the tumour is sampled at D&C. Lymphovascular space invasion is the single best predictor for nodal involvement but this information is only available after the fact at the time of final surgical pathology.

Our role as imagers is to establish the local disease extent. MR imaging can accurately depict the depth of myometrial invasion, which correlates with lymph node metastases and overall patient survival.

MR imaging is increasingly being used as a standard tool for the preoperative evaluation of patients with endometrial carcinoma. Incorporating the MR findings allows for better risk assessment than using histology alone, and ultimately guides surgical planning (despite the known discrepancy between MR assessment of myometrial invasion, nodal status and final pathology).

**Conclusion:** MR imaging plays an important role in the pre-operative risk assignment for recurrence in patients with Stage I endometrial carcinoma, and as such guides treatment stratification.

### **References:**

1. FIGO Committee on Gynecologic Oncology. *J Gyn & Ob.* 2009;105:103-104
2. Querleu D. et al. *Clinical practice guidelines for the management of patients with endometrial cancer in France: recommendations of the Institut National du Cancer and the Societe Francaise d'Oncologie Gynecologique.* *Int J Gynecol Cancer* 2011; 21:945-950

