

O-RADS™ MRI Risk Stratification and Management System

O-RADS MRI Score	Risk Category	Positive Predictive Value for Malignancy [^]	Lexicon Description
0	Incomplete Evaluation	N/A	N/A
1	Normal Ovaries	N/A	No ovarian lesion
			Follicle defined as simple cyst ≤ 3 cm in a premenopausal woman
			Hemorrhagic cyst ≤ 3 cm in a premenopausal woman
			Corpus luteum +/- hemorrhage ≤ 3 cm in a premenopausal woman
2	Almost Certainly Benign	<0.5% [^]	Cyst: Unilocular- any type of fluid content <ul style="list-style-type: none"> No wall enhancement No enhancing solid tissue*
			Cyst: Unilocular – simple or endometriotic fluid content <ul style="list-style-type: none"> Smooth enhancing wall No enhancing solid tissue
			Lesion with lipid content** <ul style="list-style-type: none"> No enhancing solid tissue
			Lesion with "dark T2/dark DWI" solid tissue <ul style="list-style-type: none"> Homogeneously hypointense on T2 and DWI
			Dilated fallopian tube - simple fluid content <ul style="list-style-type: none"> Thin, smooth wall/endosalpingeal folds with enhancement No enhancing solid tissue
			Para-ovarian cyst – any type of fluid <ul style="list-style-type: none"> Thin, smooth wall +/- enhancement No enhancing solid tissue
3	Low Risk	~5% [^]	Cyst: Unilocular – proteinaceous, hemorrhagic or mucinous fluid content*** <ul style="list-style-type: none"> Smooth enhancing wall No enhancing solid tissue
			Cyst: Multilocular - Any type of fluid, no lipid content <ul style="list-style-type: none"> Smooth septae and wall with enhancement No enhancing solid tissue
			Lesion with solid tissue (excluding T2 dark/DWI dark) <ul style="list-style-type: none"> Low risk time intensity curve on DCE MRI
			Dilated fallopian tube – <ul style="list-style-type: none"> Non-simple fluid: Thin wall /folds Simple fluid: Thick, smooth wall/ folds No enhancing solid tissue
4	Intermediate Risk	~50% [^]	Lesion with solid tissue (excluding T2 dark/DWI dark) <ul style="list-style-type: none"> Intermediate risk time intensity curve on DCE MRI Any lesion with solid tissue enhancing ≤ myometrium at 30-40s on non-DCE MRI****
			Lesion with lipid content <ul style="list-style-type: none"> Large volume enhancing solid tissue
5	High Risk	~90% [^]	Lesion with solid tissue (excluding T2 dark/DWI dark) <ul style="list-style-type: none"> High risk time intensity curve on DCE MRI Any lesion with solid tissue enhancing > myometrium at 30-40s on non-DCE MRI
			Peritoneal, mesenteric or omental nodularity or irregular thickening with or without ascites

[^]Approximate PPV based on data from Thomassin-Naggara, et al. O-RADS MRI Score for Risk Stratification of Sonographically Indeterminate Adnexal Masses. JAMA Network Open. 2020;3(1):e1919896. Please note that the PPV provided applies to the score category overall and not to individual characteristics. Definitive PPV are not currently available for individual characteristics. The PPV values for malignancy include both borderline tumors and invasive cancers.

* Solid tissue is defined as a lesion component that enhances and conforms to one of these morphologies: papillary projection, mural nodule, irregular septation/wall or other larger solid portions.

** Minimal enhancement of Rokitsansky nodules in lesion containing lipid does not change to O-RADS MRI 4.

*** Hemorrhagic cyst ≤3cm in pre-menopausal woman is O-RADS MRI 1.

****Decreased accuracy of O-RADS MRI score when DCE is not utilized

DCE = dynamic contrast enhancement with a time resolution of 15 seconds or less

DWI = diffusion weighted images

MRI = magnetic resonance imaging