

## Supplemental Online Content

Dudani S, de Velasco G, Wells JC, et al. Evaluation of clear cell, papillary, and chromophobe renal cell carcinoma metastasis sites and association with survival. *JAMA Netw Open*. 2021;4(1):e2021869. doi:10.1001/jamanetworkopen.2020.21869

**eTable 1.** Sites of Metastatic Involvement by Histology

**eTable 2.** Number of Concurrently Involved Metastatic Sites

**eFigure.** IMDC Risk Group by Site of Metastatic Involvement in ccRCC

This supplemental material has been provided by the authors to give readers additional information about their work.

**eTable 1: Sites of Metastatic Involvement by Histology**

Metastatic Site	ccRCC (N=9252)	pRCC (N=667)	chrRCC (N=186)	P-value*
<b>Lung (95% CI)</b>	70% (69-71)	49% (45-53)	36% (29-44)	<0.01
<b>Lymph Nodes (95% CI)</b>	45% (44-46)	69% (65-73)	51% (43-58)	<0.01
<b>Bone (95% CI)</b>	32% (31-33)	29% (26-33)	33% (27-41)	0.26
<b>Liver (95% CI)</b>	18% (17-19)	22% (19-26)	34% (28-41)	<0.01
<b>Adrenal (95% CI)</b>	10% (9-11)	7% (5-9)	6% (3-12)	0.02
<b>Brain (95% CI)</b>	8% (7-9)	3% (2-4)	2% (0.6-5)	<0.01
<b>Pancreas (95% CI)</b>	5% (5-6)	1% (0.6-3)	2% (0.5-6)	<0.01
<b>Pleura (95% CI)</b>	4% (4-5)	3% (2-5)	0.7% (0-4)	0.03
<b>Peritoneum (95% CI)</b>	2% (1.5-2.2)	5% (3-8)	4% (1-9)	<0.01
<b>Spleen (95% CI)</b>	0.9% (0.6-1.1)	0.6% (0.1-2)	0.8% (0-4)	0.88
<b>Thyroid (95% CI)</b>	0.7% (0.5-1.0)	0.2% (0-1)	0% N/A	0.25
<b>Bowel (95% CI)</b>	0.7% (0.5-0.9)	0.2% (0-1)	1.5% (0.2-5)	0.24

ccRCC = Clear-cell renal-cell carcinoma; pRCC = Papillary renal-cell carcinoma; chrRCC = Chromophobe renal-cell carcinoma

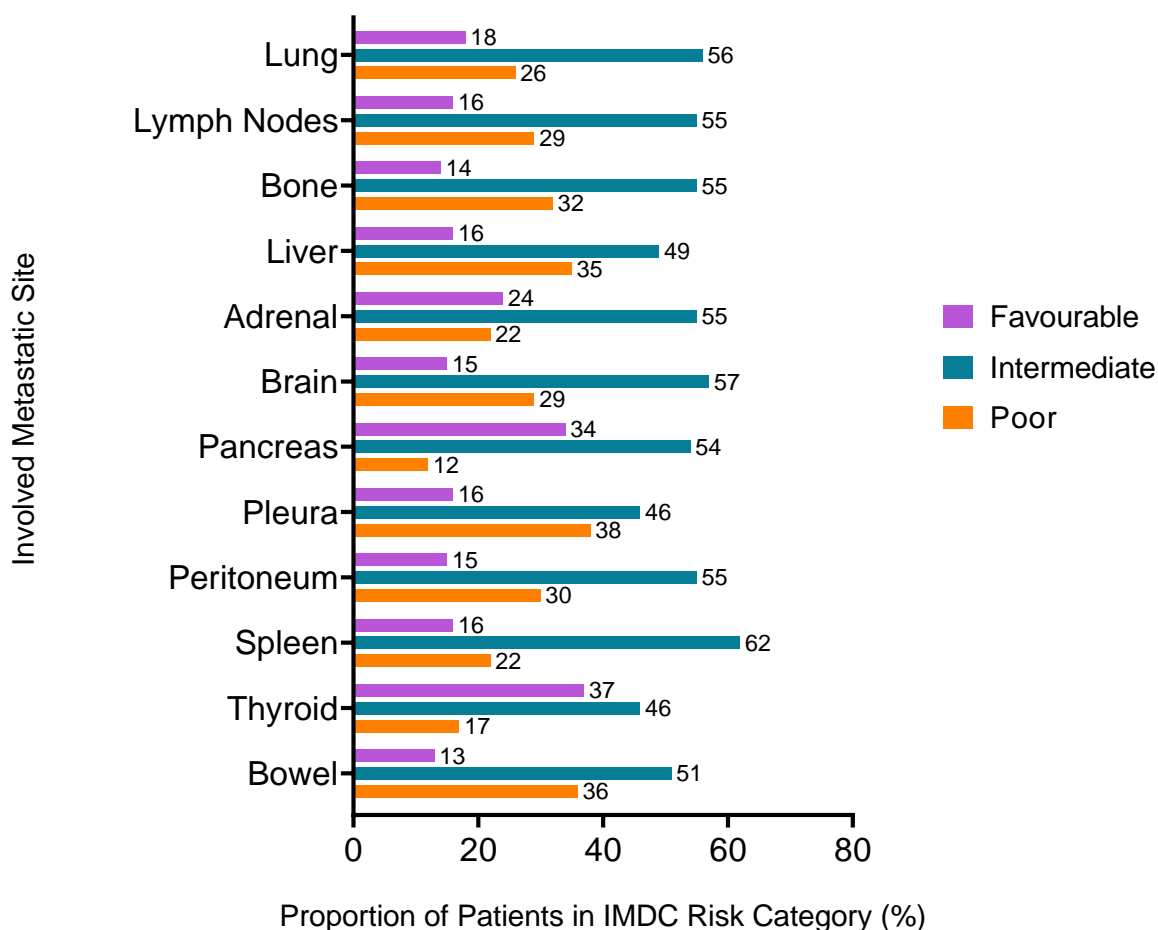
\*Chi-squared test across all three groups

**eTable 2: Number of Concurrently Involved Metastatic Sites**

Metastatic Site	Number of Concurrently Involved Sites (IQR)
Lung	2 (1-3)
Lymph Nodes	2 (2-3)
Bone	2 (2-3)
Liver	3 (2-3)
Adrenal	3 (2-4)
Brain	3 (2-4)
Pancreas	3 (2-4)
Pleura	3 (2-4)
Peritoneum	3 (2-4)
Spleen	3 (3-4)
Thyroid	3 (2-4)
Bowel	2 (2-3)

IQR = Interquartile Range

**eFigure 1: IMDC Risk Group by Site of Metastatic Involvement in ccRCC**



Caption: “IMDC risk groups by sites of metastasis in patients with metastatic clear-cell renal-cell carcinoma. Highest rates of favourable-risk disease (>30%) noted in patients with metastases to thyroid and pancreas. Highest rates of poor-risk disease (>30%) noted in patients with metastases to bone, liver, pleura and bowel.”