



# Factors that influence patients' views on treatment decision-making in localised kidney cancer

Katharina Beyer<sup>1</sup>, Ravi Barod<sup>2</sup>, David Nicol<sup>3</sup>, Muddassar Hussain<sup>4</sup>, Mieke Van Hemelrijck<sup>1</sup>, Netty Kinsella<sup>1,3</sup>

<sup>1</sup>King's College London, Faculty of Life Sciences and Medicine, Translational and Oncology Research (TOUR), London, UK; <sup>2</sup>Specialist Centre for Kidney Cancer, Royal Free Hospital, London, UK; <sup>3</sup>Department of Urology, Royal Marsden Hospital, UK; <sup>4</sup>Department of Urology, Frimley Health NHS Foundation Trust, Surrey, UK

Correspondence to: Katharina Beyer. Translational Oncology and Urology Research (TOUR), School of Cancer and Pharmaceutical Studies, 3rd Floor, Bermondsey Wing, Guy's Hospital, Great Maze Pond, London SE1 9RT, UK. Email: [katharina.beyer@kcl.ac.uk](mailto:katharina.beyer@kcl.ac.uk).

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The increasing number of treatment options for localised kidney cancer presents a unique challenge for both patients and clinicians during the decision-making process (1). Current treatment options for localised tumours (T1b, T2, T3), which comprise the largest group of patients, include active surveillance, surgery and minimally invasive ablative procedures (1,2). These differ with respect to morbidity and individual patient confidence with respect to long term outcomes and potential implications.

International guidelines on treatment decision-making in cancer-care recognise the importance of involving patients in the treatment decision-making process (3). The American Urological Association and the NICE guidelines in the UK highlight that treatment decisions are 'preference sensitive' and recommend implementing shared decision-making (1,4). In order to implement this, it is first important to understand what factors influence a patient's decision-making.

We conducted a systematic review of the evidence following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines (5). A computerised literature search of databases (PubMed, Cochrane) was performed to identify full text and abstracts published between 1st of January 2004 to September 2020 (Figure 1). Studies were selected on the basis that: (I) they explored patient views on treatment decision-making; (II) they were of sufficient methodological quality; and (III) their findings could be translated into suggestions for supportive care.

After screening titles and abstracts we identified 534

studies of which 22 met the inclusion criteria. Full text review of these by two authors (NK and KB) five studies were identified as relevant (Figure 2). Data was extracted following a Bayesian approach where data is codified into themes and presented in a meta-aggregation generating summative statements of the evidence (6). For each identified study we extracted information on treatment decision-making factors identified by patients.

One study evaluated an interdisciplinary service for renal malignancies (7), whereas another conducted an assessment of patients'/caregivers' perception of information provided in renal cancer treatment (8). The third study used a survey to measure the patients' decisional quality (e.g., emotional impact or knowledge of the decision to take) in patients diagnosed with localised kidney cancer (1). The fourth and fifth study developed a patient decision aid for surgical treatment and active surveillance in localised renal cancer (9).

A summary of the factors identified to influence patient decision-making in these five studies is shown in Table 1. Key themes emerged around 'Patient-related criteria' and 'Patient-physician interaction'. The patient-related criteria included: decisional quality and patient's risk perception (e.g., anxiety, concerns about cancer) (1,7-9). Factors contributing to the patient-physician interaction centred around patient involvement in decision-making, perceived shared decision-making and the negative influence of paternalistic care (1,7,8).

The five studies also identified gaps in supportive care during the decision-making process and recommended a move away from a paternalistic decision making model. Shirk

**Table 1** Summary table: factors influencing patient decision-making

Decision maker criteria	Factors	Supportive care suggestions	Why is this important in clinical practice	Ref
Patient-related criteria'	Patient decisional quality: (= education level; age; patient satisfaction with care; knowledge of kidney cancer; decisional conflict; emotional impact of decision making; emotional impact of decision making)	Introduce clinical decision aids to increase patient involvement and knowledge about their disease	Will reduce decisional conflict of the patient and shared decision making; however, it does not replace counselling	(1,9,10)
	Patient's risk perception: (= fear of recurrence; fatigue; anxiety; concerns about cancer; depression; aches; decreased interest in previously enjoyed activities; decreased interest in previously enjoyed events; decreased interest in previously enjoyed events; reluctance to start new relationships)	Providing patients/ caregivers with an electronic or written document to act as a reminder/resource	Will ensure that physicians do not omit or 'gloss over' important issues and patient can access information provided in a less stressful environment	(8)
		Educational videos and online modules before the appointment	Will prepare patients for an interactive consultation regarding their care	(1)
Patient-physician interaction	Patient involvement in decision making: (= interaction with different specialities; perceived shared decision making; paternalistic care, (clear) information provided by the doctor; psychological support)	Interdisciplinary counselling service	Will enable patient to receive a complete picture	(7)
		Provide more information about their cancer, long term follow-up and potential complications	Setting the scene for decision making and setting patient expectations	(8)
		Shared decision-making modelling	Consider use in reimbursement models (US) and private consultations. Increases adherence to clinical management guidelines.	(1)

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Customise: Date, species, Language
((kidney) OR (renal))
AND
((cancer) OR (malignant) OR (carcinoma) OR (malignancy) OR (tumour) OR (tumor) OR (neoplasm) OR (neoplastic) OR (neoplasia)
OR (RCC))
AND
((treatment) OR (intervention) OR (therapy) OR (surgery) OR (chemotherapy) OR (nephrectomy) OR (radiotherapy) OR ("active
surveillance") OR (ablation) OR (ablative) OR (cryotherapy) OR (RFA))
AND
(("patient preference") OR ("patient choice") OR ("patient view") OR ("patient decision") OR ("patient opinion") OR ("patient
perspective") OR ("patient perception") OR ("patient attitude") OR ("patient motive") OR ("patient motivation") OR ("patient beli**"))
    
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**Figure 1** Key word search terms.

(in 2018) and Moretto (in 2014) concluded that patients lack knowledge even after counselling (1,8), and consequently are heavily influenced by paternalistic care (1). To enable the patient to actively participate in their own care, Huber *et al.* (in 2018) introduced interdisciplinary counselling in which the patient was encouraged to attend the tumour board (i.e., Multi-Disciplinary Team meeting) (7).

This led to a significant shift in treatment decision-making, with documented change in treatment decisions alongside improved satisfaction with care (7). McAlpine *et al.* (in 2019) developed two patient decision aids for patients with localised renal cancer, which aimed to improve decisional quality (9,10).

This short review captures the complexity of

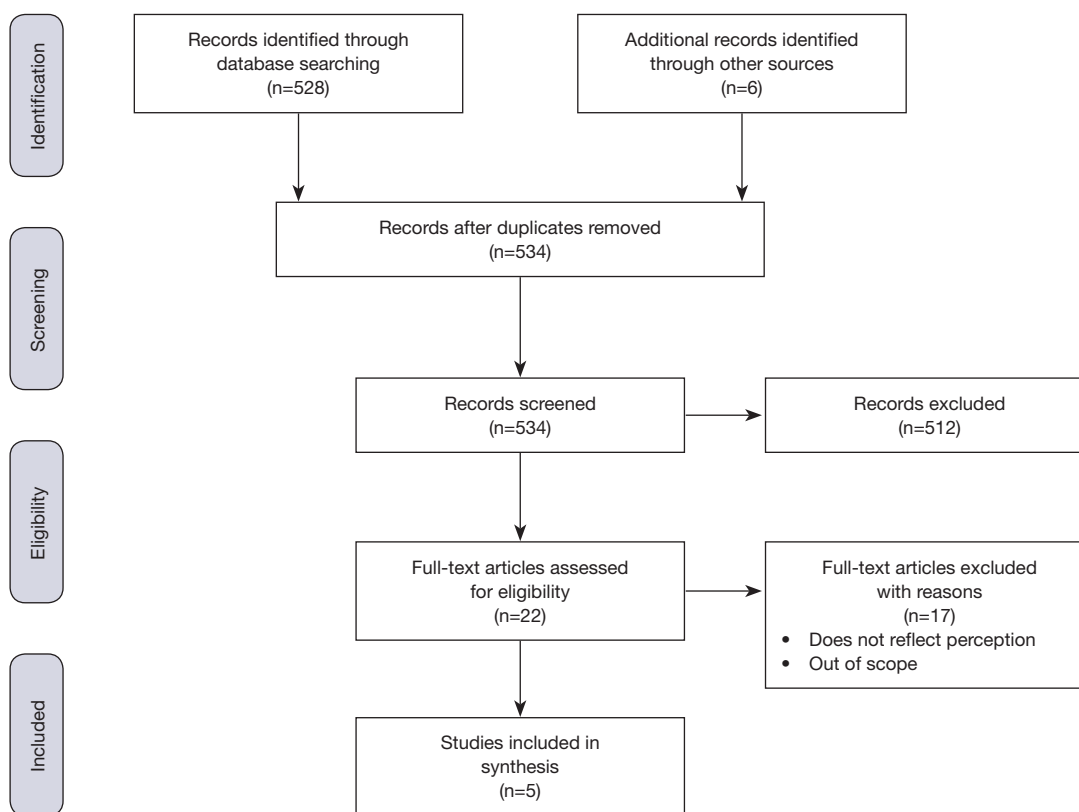


Figure 2 PRISMA.

decision-making purely from the patient perspective. An understanding of these factors is required to reduce paternalistic decision-making models of care and empower patients to take an equal and active part in the treatment decision-making process. However, we recommend future research of all factors influencing the treatment decision making process (e.g., physician-related factors) to increase guideline adherence, improve satisfaction of care and in particular help to capture the complexity of decision making.

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aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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