

**Case Study:  
The Impact of WiserCare, an Online  
Patient Decision Making Experience for  
Early Stage Prostate Cancer Patients**

WiserCare

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## INTERVENTION SUMMARY

### Location:

UNC Health Care  
Multi-Disciplinary Urologic Oncology Clinic  
Chapel Hill, North Carolina

### Purpose:

- Improve patient satisfaction
- Improve the quality of patient treatment decisions
- Improve patient knowledge of condition and treatment options
- Clarify patient values
- Reduce decision conflict
- Improve consult quality for both patient and physician

### Results:

- **37% reduction in overall Decisional Conflict**
  - **55% improvement in Patient Knowledge**
  - **49% improvement in Values Clarity**
  - **35% improvement in Patient Support**
  - **25% reduction in Uncertainty**
  - **30% improvement in Decision Effectiveness**
- **71% patient completion rate**
- **35% improvement in patient satisfaction with their treatment decision**

### Technology:

The WiserCare decision making experience, prostate cancer decision module, delivered securely online and completed by patients in a private setting

### Patient Group:

Patients: 109  
Average Age: 62.4 years of age  
Primary Diagnosis: Early-stage, localized prostate cancer

### UNC Leadership:

*Matthew Nieisen, MD, MS, FACS, Director, Urologic Oncology, UNC Lineberger Comprehensive Cancer Center, Chapel Hill, North Carolina*

*David Johnson, MD MPH – Resident, Department of Urology, University of North Carolina, Chapel Hill, North Carolina*

## **INTRODUCTION**

Patients facing a medical treatment decision often must choose between multiple options, with a widely varying set of associated outcomes, risks, benefits and side effects. Many patients gather and consume as much information as possible in order to prepare for their consult. These patients often find themselves overwhelmed with information – some relevant and credible, and some not - about their treatment options, and confused about what’s best for them. Moreover, the tradeoffs between risks and benefits inherent in such a decision render the “right answer” for an individual patient highly sensitive to his or her personal goals and preferences. Patients often don’t know how to make sense of these personal values, relate them to the decision they face, or communicate them to their physician. Other patients do not know where to start. They often show up to the consult unprepared to make a decision, get overloaded by what they learn, and don’t know what questions to ask.

We typically consider having many options beneficial, but research shows that such decisions prove complex, stressful and confusing – especially for critical choices such as medical decisions. The traditionally physician-led consult style to which we have been accustomed hasn’t yet widely evolved to account for more informed, engaged patients. Today’s often-rushed clinic environment exacerbates this disconnect. As a result, physicians and patients rarely have the opportunity to truly collaborate on the decision, leading patients to worry that they have made the wrong choice. Such doubt can set a patient up for misaligned expectations, suboptimal outcomes, and regret. However, with focused education and guidance to clarify a patient’s goals and preferences for treatment, both patients and their physicians can better prepare for treatment consults and lay the foundation for a more confident, satisfying decision with the best chance of achieving the patient’s goals.

## **SUPPORTING BETTER DECISIONS AT UNC HEALTHCARE**

Men diagnosed with early stage, localized prostate cancer (LPC) often encounter a situation much like the one described above: multiple treatment options with widely varying risks and side effects, and treatment options with very different levels of invasiveness, recovery times and cost. Men often report confusion and difficulty deciding what treatment approach will be best for them, and post-treatment regret is not uncommon. Urologists at the UNC Lineberger Comprehensive Cancer Center in Chapel Hill, North Carolina, set out to improve the decision making experience for men newly diagnosed with LPC. They aimed to create a high-quality, shared decision making (SDM) experience that would better prepare patients and their providers to collaborate and make the best treatment decisions for each patient.

To support this effort, UNC chose WiserCare, a novel software application that helps address key challenges of the decisionmaking process. WiserCare pairs an analysis of published evidence that is personalized to the patient’s clinical situation with an

interactive assessment that clarifies the patient's goals and preferences for the risks, benefits and side effects associated with each treatment option. It educates and prepares the patient *prior to the consult* on what treatment options might fit him best.

## WHY DECISIONS MATTER

While medical treatment decisions are a deeply personal matter between a patient (and family) and his or her physician, when taken in aggregate, they have an expansive impact on the healthcare delivery ecosystem. Indeed, placing the patient at the center of treatment decisions starts a virtuous cycle of benefits.

**For patients:** Today's patients express a growing need and desire for deeper information about, and more active involvement in, their healthcare. WiserCare's own research shows that 99% of patients expect to have a role in their treatment decision that is equal to, or greater than, that of their physician. This is a dramatic shift from the more passive patient role of 10 or 20 years ago. When patients make well-informed and thoughtful decisions that account for the benefits, risks and side-effects of each option, as well as their personal preferences, they have a better care experience. Moreover, research has shown that patients who engage in this way gain more realistic expectations of treatment, adhere more closely to their treatment plans, and have better outcomes overall. They also are also less likely to regret their decisions, delay treatment, or blame their providers for less-than-optimal outcomes.

**For providers:** For the physicians – and health systems – treating these patients, the benefits of a more confident, engaged patient prove clear and far-reaching: greater adherence and better outcomes lead to higher quality and the economic benefits that follow from both governmental and commercial payers. Beyond this, more confident patients and better outcomes have competitive and strategic value. They drive higher patient satisfaction and loyalty, leading to greater total customer value, less 'leakage', and patient referrals. Improving the care experience when it matters most – when a patient faces a potentially life-altering decision – has gone from lofty aspiration to key strategy for competing in today's healthcare marketplace.

**For the healthcare delivery ecosystem:** Better treatment decisions can also produce important and profound economic effects in addition to the better outcomes, satisfaction and corollary benefits described above. Research has demonstrated that patients who engage deeply in medical decisions and understand the risks, benefits and side effects of each treatment option often choose a less intensive treatment approach – driving lower overall costs and more efficient use of specialist services. While the strongest evidence of this impact has emerged in the realm of preference-sensitive or elective procedures, researchers believe that a very wide range of decisions lend themselves to greater patient engagement and choice. As such, a patient-centric approach that produces higher quality treatment decisions will also, with widespread application, address overutilization and waste that will positively impact risk-bearing providers, payers, employers and the overall system.

## MEASURING DECISION QUALITY

As defined in the literature and in practice, a high quality treatment decision is one that is fully informed, reflects the patient's values, and will be confidently executed upon. Researchers with an interest in decisional quality have long used an instrument known as the Decisional Conflict Scale (DCS) to assess the level of conflict present in a patient's decision as a proxy of overall quality. Decisional conflict is defined as personal uncertainty about which course of action to take when the choice among competing options involves risk, regret, or challenge to personal life values. Researchers have validated the DCS many times over the past two decades, and now consider it the gold standard for measurement of decisional conflict. UNC used DCS to evaluate the impact of their WiserCare decisionmaking intervention.

Using 16 questions, a DCS includes 5 subscales covering the following topics:

- *Informed subscale*: The extent to which a person feels uninformed about the alternatives, risks and benefits in a decision
- *Values clarity*: The extent to which a person feels unclear about his or her personal goals, values and preferences for treatment
- *Support subscale*: The extent to which a person feels unsupported in his or her choice, or pressured to choose a particular course of action
- *Uncertainty subscale*: The extent to which a person feels the best choice for them is clear
- *Effective Decision subscale*: The extent to which a person feels that he or she has made an informed choice that reflects personal values, and that he or she will stick to and be satisfied with the decision.

## THE INTERVENTION

UNC's Multi-disciplinary Urologic Oncology Clinic serves as a regional referral center for much of the surrounding geographic area. As such, most patients first encounter the center upon receipt of a positive biopsy result and referral for a treatment consult with a multidisciplinary UNC team, typically including a urologist and radiation oncologist. When scheduling this consult with a patient, a UNC scheduler provides him a quick introduction to the WiserCare online tool, and sends an invitation, asking him to complete the experience in a private setting prior to the treatment consultation.

WiserCare is a cloud-based software platform that uses a patented approach to decision analysis to provide patients with individualized guidance on what treatment options fit them best, and also prepares physicians for treatment consults by providing insights into the patient's goals and preferences, which can prove difficult to surface and explore during compressed visit times. More specifically, the technology:

- Personalizes the highest quality evidence to a patient's unique clinical situation (age, comorbidities, lab tests, stage of illness, and other factors)
- Narrows choices to clinically appropriate treatments for that patient
- Assesses, clarifies and prioritizes the patient's goals and preferences
- Using the foregoing and a patented algorithm, determines the "best fit" options for the patient
- Provides validated educational material about these options

The WiserCare platform generates a report – featuring an individualized ranking of treatment options based on the likelihood that a given choice will deliver the set of outcomes an individual patient is hoping to achieve. This fit is based on clinical prognostic factors and personal preferences. The patient receives this report electronically, and may print it if desired. The patient's physician also receives a succinct, patient-at-a-glance report. Both the patient and the physician enter the treatment consult in a more informed and prepared state, thus allowing the consult to begin from a place of shared understanding.

## RESULTS

In order to measure WiserCare's effect, the UNC practice measured patients' DCS immediately before and after completion of the WiserCare module. Patients completed the DCS questions online in conjunction with the WiserCare experience.

109 men newly diagnosed with localized prostate cancer completed WiserCare and the pre- and post-WiserCare DCS questions. This number represents 71% of the patients invited to use WiserCare, an engagement rate far higher than more traditional education and engagement interventions. The Overall DCS score improved by 37% ( $p < 0.00001$ ) after completion of the WiserCare module. Further analysis of the five question subscales revealed improvement on every dimension:

- Information: 55% improvement
- Values clarity: 49% improvement
- Support: 35% improvement
- Uncertainty: 25% improvement
- Decision Efficacy: 30% improvement

## CONCLUSIONS

Deploying WiserCare as a pre-consult experience has a significant impact on patient care. WiserCare proved effective at delivering evidence-based education, clarifying patient goals, providing personalized treatment guidance and ultimately improving decision quality and reducing decisional conflict in men with LPC.

The dramatic decrease in decisional conflict on all five subscales highlights WiserCare's ability to directly impact the quality of decisions made by patients with the help of their physicians. Men seeking care for early stage prostate cancer at

UNC are now more informed, resolved and confident in their choices. Results such as these produce the corollary patient benefits discussed above: higher satisfaction, better treatment adherence, and better outcomes.

UNC also enjoys the benefits of the better treatment decisions produced by the WiserCare experience. While UNC did not set out to measure its impact on physician experience and satisfaction, urologists whose patients use WiserCare report high satisfaction with the tool, citing the insights it provides to both doctor and patient as drivers of higher quality, more efficient consults and smarter, faster decisions. The transformation of the treatment decision making experience at UNC – often the first contact that LPC patients have with the system – serves to improve the system’s competitive position more broadly and over time, further solidifying UNC as a destination of choice for cancer care.

## **THANK YOU.**

Those interested in learning more about how WiserCare works with health systems to help patients and providers make smarter, more confident decisions can contact:

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