Cancer & Sexual Health
The Male Patient

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Urology Service
Memorial Sloan Kettering Cancer Center
Disclosures (COI)

Grants

• Center for Intimacy after Cancer Therapy (CIACT)
• NIH
• Sexual Medicine Society of North America (SMSNA)
“It takes 50 years to get a wrong idea out of medicine and 100 years to get a right one into it”

John Hughlings Jackson
Neurologist
The goal of the sexual medicine clinician is to facilitate the patient (or couple) resuming satisfactory sexual relations.
Male Sexual Dysfunctions

- Erectile dysfunction
- Low libido
- Penile morphology changes
- Failure to ejaculate
- Delayed orgasm
- Painful orgasm
- Sexual incontinence

Infertility
How Cancer Causes Sexual Problems

Psychological Factors

Surgery

Radiation

Chemo/Hormone therapy
Impact of Sexual Dysfunction
Sequelae: The Spiral Downwards

• Loss of sexual confidence

• Reduced sexual satisfaction

• Loss of self-esteem

• Sexual avoidance

• Changes in relationship satisfaction

• Female sexual dysfunction
Regret with RP

• Multivariate logistic regression analysis of men (n=400) treated with either ORP or RALP between 2000-2007

• 84% satisfied with their treatment

• Predictors of lower patient satisfaction
  - Lower income
  - Shorter follow-up
  - LARP (vs ORP)

• Reasons for higher regret among RALP patients?

ED & Bother (RP)

The Big Sins in Sexual Health Care

• Apathy
• Ageism
• Projection
• Judgement
• Intolerance
Optimal Outcomes

Achieving optimal outcomes requires full informed consent before treatment which requires that the clinician gives realistic expectations about the effectiveness and side effects of treatment.
Barriers To Good Sexual Health Care

- Physician discomfort
- Physician bias
- Physician projection
- Concept of physician as a technician
- Time constraints
- Ageism
- The patient with pre-treatment ED
- The non-partnered patient
- The gay patient
Communication
Has Your Doctor Asked Whether You Have Sexual Difficulties?

% of Respondents

Africa & Middle East  Asia  Australasia  Europe  Latin America  North America

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The Top 10 Medical Conditions Too Embarrassing for Patients to Discuss With Their Family Physician

1. ED
2. STI
3. Physical and sexual abuse
4. Prostate problems
5. Incontinence of bladder or bowels
6. Emotional problems like depression
7. Eating disorders
8. Alcohol or drug abuse
9. Birth control and sex (especially teens)
10. Menopause
Measuring Quality of Life in Routine Oncology Practice Improves Communication and Patient Well-Being: A Randomized Controlled Trial

Galina Velikova, Laura Booth, Adam B. Smith, Paul M. Brown, Pamela Lynch, Julia M. Brown, and Peter J. Selby

Abstract

Purpose
To examine the effects on process of care and patient well-being, of the regular collection and use of health-related quality-of-life (HRQL) data in oncology practice.

Patients and Methods
In a prospective study with repeated measures involving 28 oncologists, 286 cancer patients were
Realistic Expectations
Realistic Expectations

• Discussion of prevalence of the major sexual problems
• Discussion of chronology of recovery
• Discussion of strategies to minimize long-term effects
• Discussion of strategies to treat adverse effects
• Referral pre-therapy to a sexual medicine clinician
## Patient Expectations

<table>
<thead>
<tr>
<th></th>
<th>Open</th>
<th>Robotic</th>
<th>p Value$^+$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to recovery of functional erections (months)</td>
<td>12</td>
<td>6</td>
<td>0.02</td>
</tr>
<tr>
<td>Proportion of patients having recovery of EF to baseline level (%)</td>
<td>50</td>
<td>75</td>
<td>0.01</td>
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</table>
## Patient Expectations

<table>
<thead>
<tr>
<th></th>
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<th>Robotic</th>
<th>p Value&lt;sup&gt;+&lt;/sup&gt;</th>
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</thead>
<tbody>
<tr>
<td>Anejaculatory status (%)</td>
<td>70</td>
<td>60</td>
<td>NS</td>
</tr>
<tr>
<td>Potential for orgasmic pain (%)</td>
<td>2</td>
<td>0</td>
<td>NS</td>
</tr>
<tr>
<td>Potential for climacturia (%)</td>
<td>2</td>
<td>0</td>
<td>NS</td>
</tr>
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</table>
For qualified candidates, the robotic prostatectomy offers numerous potential benefits over the traditional open prostatectomy, including:

- Retention of bladder control
- Retention of erectile function

Impotence
Impotence is the inability to have an erection of the penis. For a month, or so, after surgery, most men are not able to get an erection. For men who have open retropubic radical prostatectomy, approximately 40 to 60 percent will be able to get an erection sufficient for sexual intercourse, but without ejaculation of semen, since removal of the prostate gland prevents that process.

Potential patient benefits of robotic prostatectomy include:

- Minimal pain

Potential patient benefits of robotic prostatectomy include:

- Minimal impact on quality of life including sexual function and urinary control
# TABLE 1 Grading of information on erectile function

<table>
<thead>
<tr>
<th>Grade</th>
<th>RALP</th>
<th>University</th>
<th>Private</th>
<th>ORP</th>
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<tbody>
<tr>
<td>N</td>
<td>70</td>
<td>36</td>
<td>34</td>
<td>20</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10†</td>
</tr>
<tr>
<td>B</td>
<td>19</td>
<td>19</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>C</td>
<td>38</td>
<td>44</td>
<td>32*</td>
<td>45</td>
</tr>
<tr>
<td>U</td>
<td>43</td>
<td>36</td>
<td>50*</td>
<td>25†</td>
</tr>
</tbody>
</table>

P < 0.05, *Private vs Academic RARP; †ORP vs RALP.
Knowledge of ADT Adverse Effects

![Bar chart showing the percentage of participants unaware of potential side effects of ADT. The x-axis represents various side effects including Hot Flashes, Loss of Libido, Fatigue, Gynecomastia, Genital Shrinkage, Weight Gain, Anemia, etc. The y-axis represents the percentage of participants unaware of each side effect. The chart compares data from patients and spouses.](image)
Defining Outcomes
ED Prevalence Reporting

• Data acquisition

• Definition of ED

• Population studied
Radical Pelvic Surgery
EFR Rates = 0-97%
Metanalysis
Tal et al. JSM 2010

<table>
<thead>
<tr>
<th>Study (k=22)</th>
<th>Time point</th>
<th>N</th>
<th>EFR %</th>
<th>95% CI</th>
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<td>12</td>
<td>32</td>
<td>0.42</td>
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<td>201</td>
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<td>24</td>
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<td>0.35</td>
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<tr>
<td>Martis et al., 2007</td>
<td>24</td>
<td>100</td>
<td>0.60</td>
<td>0.50</td>
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<td>Michl et al., 2006</td>
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<td>0.74</td>
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<tr>
<td>Noh et al., 2003</td>
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<td>172</td>
<td>0.66</td>
<td>0.59</td>
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<tr>
<td>Noldus et al., 2002</td>
<td>12</td>
<td>68</td>
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<tr>
<td>Rabbani et al., 2000</td>
<td>24</td>
<td>207</td>
<td>0.51</td>
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<tr>
<td>Rocco et al., 2006</td>
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<td>43</td>
<td>0.44</td>
<td>0.30</td>
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<td>Rogers et al., 2006</td>
<td>12</td>
<td>127</td>
<td>0.60</td>
<td>0.41</td>
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<tr>
<td>Salomon et al., 2002</td>
<td>12</td>
<td>43</td>
<td>0.51</td>
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<td>Saranchuk et al., 2005</td>
<td>24</td>
<td>647</td>
<td>0.62</td>
<td>0.58</td>
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<td>Wagner et al., 2006</td>
<td>12</td>
<td>53</td>
<td>0.60</td>
<td>0.47</td>
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<td>Zorn et al., 2007</td>
<td>24</td>
<td>227</td>
<td>0.76</td>
<td>0.69</td>
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</table>

Mean (Fixed Effects) 4,983  0.58  0.56  0.60
Mean (Random Effects) 4,983  0.56  0.51  0.62
Pathophysiology

Endothelial Damage

Neural Injury

Smooth Muscle Damage
Patients with baseline EFD ≥24: Impact of age

<table>
<thead>
<tr>
<th>Variable</th>
<th>With/Without PDE5 at 24m</th>
<th>Never Used PDE5 at 24m</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 60 (n= 81)</td>
<td>48%</td>
<td>23%</td>
</tr>
<tr>
<td>≥ 60 (n= 51)</td>
<td>16%</td>
<td>4%</td>
</tr>
</tbody>
</table>
Chronology

• Optimal recovery 18-24 months

• Nadir in EF @ 3-4 months

• Recovery beyond 2 years
Recovery of Erections after RP

• Degree of nerve sparing
• Preoperative erectile function
• Patient age
• Postoperative erectile hemodynamics
• Surgeon experience
• Surgeon volume
• Vascular comorbidities
• Serum testosterone levels
Testosterone
Statement of Need

• In USA T prescriptions have nearly tripled in recent years
• About 1/3 of patients on T therapy do not meet the criteria
• 25% of men on T therapy have not had T levels tested
• 40% on treatment have no follow-up labs performed
• Many men in need of T therapy not receiving it
• AUA guidelines based on systematic review (multidisciplinary panel)
4. Measure T levels Even in the Absence of Symptoms/Signs

- Unexplained anemia
- Bone density loss
- Diabetes
- Exposure to chemotherapy
- Exposure to testicular radiation
- HIV/AIDS
- Chronic narcotic use
- Male infertility
- Pituitary dysfunction
- Chronic corticosteroid use

(Moderate recommendation; evidence level: grade B)
Definition

1. Total T level <300 ng/dL as a cut-off for diagnosis of low T (Moderate Recommendation; Evidence Level: Grade B)

2. Low T diagnosis: two total T measurements; separate occasions; same lab; same assay; early morning fashion (Strong Recommendation; Evidence Level: Grade A)

3. T deficiency (TD) diagnosis made with low total T levels combined with symptoms and/or signs (Moderate Recommendation; Evidence Level: Grade B)

5. Use of validated questionnaires not recommended (Conditional Recommendation; Evidence Level: Grade C)
T & The Heart

19. There is no definitive evidence linking T therapy to venothrombo-embolic events
Moderate Recommendation; Evidence Level Grade C

13. Low T is a risk factor for CVD
Strong Recommendation; Evidence Level Grade B

20. It cannot be stated definitively whether T therapy increases or decreases the risk of MACE
Moderate Recommendation; Evidence Level Grade B

24. T therapy should not be commenced for 3-6 months in patients with a history of a MACE
Expert Opinion
T therapy and MACE Risk

• RCTs demonstrate no significant difference in the incidence of MACE
  OR (MI) = 0.61
  OR (stroke) = 0.98
  OR (CV death) = 0.54
  OR (all-cause mortality) = 0.46

• Epidemiologic, observational studies, and meta-analyses evaluating T therapy and risk of MACE have reported conflicting data
  Increase in MACE (Vigen, Finkle, Basaria)
  Decrease in MACE (Shores, Jones, Sharma, Muraleedharan, Cheetham)
  Neutral effect on MACE (Nair, Borst, Amory, Snyder, Fernandez-Balsells, Calof, Haddad, Corona, Baillargeon).
T & Fertility

10. TD patients interested in fertility should have a reproductive health evaluation pre-T therapy
Moderate Recommendation; Evidence Level Grade B

16. The long-term impact of exogenous T on spermatogenesis should be discussed with patients who are interested in future fertility
Strong Recommendation; Evidence Level Grade A

23. Exogenous testosterone therapy should not be prescribed to men who are currently trying to conceive.
Strong Recommendation; Evidence Level Grade A

27. Clinicians may use aromatase inhibitors, hCG, SERMs, in men with TD desiring to maintain fertility
Conditional Recommendation; Evidence Level Grade C
T & Prostate

12. **Measure** PSA in men ≥40y pre-T therapy
   **Expert Opinion**

17. There is an absence of evidence linking testosterone therapy to the development of prostate cancer
   **Strong Recommendation; Evidence Level Grade B**

18. For the prostate cancer patient with TD, there is inadequate evidence to quantify the risk-benefit ratio of testosterone therapy
   **Expert Opinion**
Lifestyle Modifications

21. All men with testosterone deficiency should be counseled regarding lifestyle modifications as a treatment strategy. Conditional Recommendation Evidence Level Grade B
Dignity

Dignity is pre-eminent. It is an unconditional value, possessed by all. A treater’s action (treatment) expresses respect for a person’s dignity if, they are treated as an individual, and we are seen to maximize the preservation of personhood, through honesty, balance, and the optimization of outcomes.
Maximizing Dignity Preservation

• Set realistic expectations (Honesty)
• Partner with them in the decision-making (Relationship)
• Listen to their concerns and complaints (Communication)
• Develop systems to aid patients with problems (Support)
We should focus not solely on adding years to life but also on adding life to years.
Variation in mean level of student concentration with time from start of lecture (mean for 12 lectures plus profiles for each of the four lecturers).
National Direction for Cancer Survivorship Initiatives

A National Action Plan for Cancer Survivorship: Advancing Public Health Strategies

From Cancer Patient to Cancer Survivor

Living Beyond Cancer: Finding a New Balance
President's Cancer Panel 2003 Annual Report
### Correlations with HADS Depression Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Status</td>
<td>0.15</td>
<td>0.01</td>
</tr>
<tr>
<td>Age</td>
<td>0.07</td>
<td>0.17</td>
</tr>
<tr>
<td>Disease Stage</td>
<td>0.03</td>
<td>0.64</td>
</tr>
<tr>
<td>Treatment (RT vs. RP)</td>
<td>-0.16</td>
<td>0.01</td>
</tr>
<tr>
<td>Anxiety</td>
<td>0.56</td>
<td>0.001</td>
</tr>
<tr>
<td>Social Support</td>
<td>-0.43</td>
<td>0.001</td>
</tr>
<tr>
<td>Erectile Function</td>
<td>-0.12</td>
<td>0.03</td>
</tr>
</tbody>
</table>

### Multiple regression results predicting HADS depression scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
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<td>-1.16</td>
<td>0.25</td>
</tr>
<tr>
<td>Age</td>
<td>0.11</td>
<td>2.24</td>
<td>0.03</td>
</tr>
<tr>
<td>Disease Stage</td>
<td>0.01</td>
<td>0.03</td>
<td>0.98</td>
</tr>
<tr>
<td>Treatment Type</td>
<td>-0.09</td>
<td>-1.17</td>
<td>0.08</td>
</tr>
<tr>
<td>Social Support</td>
<td>-0.20</td>
<td>-4.14</td>
<td>0.001</td>
</tr>
<tr>
<td>Anxiety</td>
<td>0.51</td>
<td>10.83</td>
<td>0.001</td>
</tr>
<tr>
<td>Erectile Function</td>
<td>-0.10</td>
<td>-2.26</td>
<td>0.02</td>
</tr>
</tbody>
</table>
Institute of Medicine Report

- Establish survivorship as a distinct phase of care
- Implement survivorship care plans
- Build bridges between oncology and primary care
- Develop and test models of care
- Develop and evaluate clinical practice guidelines
- Institute quality of survivorship measures
- Strengthen professional education
- Expand use of psychosocial and community support services
- Invest in survivorship research
Health-Related Quality-of-Life Assessments and Patient-Physician Communication
A Randomized Controlled Trial

Symone B. Detmar, PhD
Martin J. Muller, MSc
Jan H. Schornagel, MD, PhD
Lidwina D. V. Wever
Neil K. Aaronson, PhD

Context There has been increasing interest in the use of health-related quality-of-life (HRQL) assessments in daily clinical practice, yet few empirical studies have been conducted to evaluate the usefulness of such assessments.

Objective To evaluate the efficacy of standardized HRQL assessments in facilitating patient-physician communication and increasing physicians’ awareness of their patients’ HRQL-related problems.

Design Prospective, randomized crossover trial.

Setting Outpatient clinic of a cancer hospital in the Netherlands.

Participants Ten physicians and 214 patients (76% women; mean age, 57 years) undergoing palliative chemotherapy who were invited to participate between June 1996 and June 1998.

Intervention At 3 successive outpatient visits, patients completed an HRQL questionnaire (European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-Core 30). The responses were computer scored and transformed into a graphic summary. Physicians and patients received a copy of the summary before the consultation.

Main Outcome Measures Audiotapes of the consultations were content analyzed to evaluate (1) the amount of time spent on the HRQL summary, (2) the frequency of mention of HRQL-related problems, (3) the impact of HRQL-related problems, and (4) the perceived degree of HRQL-related problems.
Given the strong animal and basic science evidence and understanding the strengths and weaknesses of the existing human studies and the negative consequences of long-term ED after RP, the committee suggests that penile rehabilitation has significant potential benefits for the patient/partner and should be considered after RP.
The Future

The next decade will see greater focus on modulation of host factors.