The Effectiveness of a Criteria-Led Discharge Initiative on the Length of Stay of Patients Who Underwent a Robotic-Assisted Laparoscopic Prostatectomy


1 Nepean Urology Research Group, Nepean Hospital, Kingswood, New South Wales, Australia 2 Faculty of Medicine, University of Sydney, Sydney, New South Wales, Australia 3 Fiona Stanley Hospital, Murdoch, Western Australia, Australia 4 University of Western Australia, Crawley, Western Australia, Australia 5 Faculty of Medicine, University of Queensland, Queensland, Australia

Abstract

Objectives  To determine the impact of a criteria-led discharge initiative (CLD) on the hospital length of stay of patients undergoing a robotic-assisted laparoscopic prostatectomy (RALP).

Methods  This is a cohort study of prospectively collected data completed at a major tertiary hospital from December 2017 to August 2020. The CLD initiative consists of 4 criteria: clinical haemodynamic stability (heart rate < 100 beats/minute, systolic blood pressure > 100mmHg), a drain output of less than 50 mL, flatulence or bowel movement, and the ability to tolerate an oral diet. The primary outcome was hospital length of stay for patients before and after the introduction of CLD.

Results  One hundred men undergoing RALP before the implementation of the CLD initiative were compared to 118 men undergoing RALP following the implementation of CLD. The patients had similar baseline demographic features. There was a significant difference found in hospital LOS with the pre-CLD group LOS (mean = 1.8 days, SE = 0.12) being longer than the LOS in the post-CLD group (mean = 1.4 days, SE = 0.09, P = 0.015). There were no significant between-group differences in the proportion of patients discharged on the first postoperative day and the 30-day readmission rate.

Conclusion  Within our study population, we have demonstrated that the introduction of CLD was associated with reduced hospital LOS with no increase in adverse events. These findings support the need for the development of CLD in other conditions.

Introduction

Prostate cancer is the most commonly diagnosed cancer among males in Australia and has the highest cancer treatment cost for males with an annual expenditure of AUD684 million in 2015–2016 [1]. Notably, this is near twice the reported expenditure on prostate cancer compared with 2008–2009 (AUD 349 million). Most of this reported expenditure is from the costs associated with hospital-admitted patient services. Radical prostatectomy
seminal vesicle dissection, and finally the vesicourethral
dorsal venous complex (DVC), bladder neck incision,
space, opening of the endopelvic fascia, ligation of the
approach used for development of the retropubic
placement for RALP was used with a standard retrograde
anaesthetic without epidural anaesthetic. A 6-port
patients. All operations were performed under general
Surgical Inc., Sunnyvale, CA) was performed on all
4-arm, da Vinci Si dual-console Surgical System (Intuitive
A transperitoneal, non-Retzius-sparing RALP, using a
Operative setting
The study hospital is a training hospital with several
volume RALP (> 100/year), public hospital in New South
Wales, Australia from December 2017 to August 2020.
The study hospital is a training hospital with several
surgeons experienced in robotic surgery performing the
RALP with operative console time split with the
fellow/trainees. Patient data were collected prospectively
and entered into a secure electronic database. Ethics
approval for this project was obtained from the Nepean
Hospital Human Research and Ethics committee in
September 2017 (approval number: Study 17–53 A).

Operative setting
A transperitoneal, non-Retzius-sparing RALP, using a
4-arm, da Vinci Si dual-console Surgical System (Intuitive
Surgical Inc., Sunnyvale, CA) was performed on all
patients. All operations were performed under general
anaesthetic without epidural anaesthetic. A 6-port
placement for RALP was used with a standard retrograde
approach used for development of the retropubic
space, opening of the endopelvic fascia, ligation of the
dorsal venous complex (DVC), bladder neck incision,
semenal vesicle dissection, and finally the vesicourethral
anastomosis, which was performed with a posterior
reconstruction and a continuous unidirectional barbed
suture. Pneumoperitoneum pressure was standardised
throughout the series with pressure of < 15 mmHg via
an AirSeal system (AirSeal, ConMed, Utica, NY) used
during the procedure, and only changes to pressures up
to 20 mmHg occurred during surgical management of
the DVC. The decision for a lymph node dissection was
made on a case-by-case basis in accordance with the
European Association of Urology Guidelines on Prostate
Cancer[5]. If a lymph node dissection was undertaken,
the lymph nodes overlying the external iliac artery/vein,
the nodes within the obturator fossa located cranially
and caudally to the obturator nerve, and if possible, the
nodes medial and lateral to the internal iliac artery were
removed. Whenever possible, a nerve sparing approach
was used. Bupivacaine 0.5% 10 mL local anaesthetic is
infiltrated into the incisional port sites at the completion
of the operation. A suction pelvic drain was typically
placed routinely at the completion of the operation.
Following the surgery patients were transferred to the
postoperative recovery area prior to transfer to the ward.
Postoperative analgesia routine included regular non-
opioid analgesia charted for every patient, with opioid
analgesia used only for breakthrough pain relief. On the
ward, patients are reviewed by the operative team twice
daily: in the morning (07:00–08:00) and in the afternoon
(16:00–17:00) ward rounds.

Criteria-led discharge initiative
An initiative to protocolise discharge for patients
undergoing robotic prostatectomy was proposed in 2017
and was fully implemented for all patient undergoing
RALP on December 9. Before the development of the CLD
initiative, a literature review was undertaken and identified
predetermined clinical factors that were supported by
previous research and agreed upon departmentally. The
CLD initiative consisted of 4 criteria patients had to meet
before discharge: a drain output of less than 50 mL, being
hemodynamically stable (heart rate < 100 beats/minute,
systolic blood pressure > 100 mmHg), having passed flatus
or opened their bowels, and the ability to tolerate an oral
diet[6]. The CLD initiative was used as an adjunct to the
ward round. The discharge readiness of patients would
be assessed throughout the day by ward staff who would
then initiate patient discharge.

Data collection
Data were collected on demographic, perioperative, and
pathological variables. Demographic variables included
age, body mass index (BMI), preoperative haemoglobin
(Hb), and prostate volume. Perioperative variables
included console time, blood loss, nerve sparing (non,
unilateral, bilateral) lymph node dissection, Clavien-
Dindo score, length of stay, and 30-day readmission.

The Effectiveness of a Criteria-Led Discharge Initiative on the Length of Stay of Patients

In recent years, the European Association of Urology
has recommended research based protocolised periop-
erative care in the management of urological patients[3].
Criteria-led discharge (CLD) is considered as one of the
protocolised perioperative care initiatives that may
contribute to improving bed availability/capacity through
more streamlined/standardised patient discharge. CLD
in surgical patients dates back to 1992, and refers to the
discharge of patients by nursing, midwife, allied health,
and junior medical staff who have the necessary know-
edge, skills, and competencies to review patients and
initiate inpatient discharge[4]. This removes the need
for the patient to wait for the lead clinician to approve
discharge. The criteria for patient discharge are predeter-
dined medical, nursing, and therapy parameters accord-
ing to clinical guidelines or best practices for particular
conditions. Currently, there is a paucity of literature on
the use of CLD with the treatment of prostate cancer.

The purpose of this study was to assess the impact of
the introduction of a CLD initiative on LOS and read-
mission rates for men undergoing RALP in our centre.

Methods
This prospective cohort study was completed at a high-
volume RALP (> 100/year), public hospital in New South
Wales, Australia from December 2017 to August 2020.
In recent years, the European Association of Urology
has recommended research based protocolised periop-
erative care in the management of urological patients[3].
Criteria-led discharge (CLD) is considered as one of the
protocolised perioperative care initiatives that may
contribute to improving bed availability/capacity through
more streamlined/standardised patient discharge. CLD
in surgical patients dates back to 1992, and refers to the
discharge of patients by nursing, midwife, allied health,
and junior medical staff who have the necessary know-
edge, skills, and competencies to review patients and
initiate inpatient discharge[4]. This removes the need
for the patient to wait for the lead clinician to approve
discharge. The criteria for patient discharge are predeter-
dined medical, nursing, and therapy parameters accord-
ing to clinical guidelines or best practices for particular
conditions. Currently, there is a paucity of literature on
the use of CLD with the treatment of prostate cancer.

The purpose of this study was to assess the impact of
the introduction of a CLD initiative on LOS and read-
mission rates for men undergoing RALP in our centre.

Methods
This prospective cohort study was completed at a high-
volume RALP (> 100/year), public hospital in New South
Wales, Australia from December 2017 to August 2020.
The study hospital is a training hospital with several
surgeons experienced in robotic surgery performing the
RALP with operative console time split with the
fellow/trainees. Patient data were collected prospectively
and entered into a secure electronic database. Ethics
approval for this project was obtained from the Nepean
Hospital Human Research and Ethics committee in
September 2017 (approval number: Study 17–53 A).

Operative setting
A transperitoneal, non-Retzius-sparing RALP, using a
4-arm, da Vinci Si dual-console Surgical System (Intuitive
Surgical Inc., Sunnyvale, CA) was performed on all
patients. All operations were performed under general
anaesthetic without epidural anaesthetic. A 6-port
placement for RALP was used with a standard retrograde
approach used for development of the retropubic
space, opening of the endopelvic fascia, ligation of the
dorsal venous complex (DVC), bladder neck incision,
semenal vesicle dissection, and finally the vesicourethral
anastomosis, which was performed with a posterior
reconstruction and a continuous unidirectional barbed
suture. Pneumoperitoneum pressure was standardised
throughout the series with pressure of < 15 mmHg via
an AirSeal system (AirSeal, ConMed, Utica, NY) used
during the procedure, and only changes to pressures up
to 20 mmHg occurred during surgical management of
the DVC. The decision for a lymph node dissection was
made on a case-by-case basis in accordance with the
European Association of Urology Guidelines on Prostate
Cancer[5]. If a lymph node dissection was undertaken,
the lymph nodes overlying the external iliac artery/vein,
the nodes within the obturator fossa located cranially
and caudally to the obturator nerve, and if possible, the
nodes medial and lateral to the internal iliac artery were
removed. Whenever possible, a nerve sparing approach
was used. Bupivacaine 0.5% 10 mL local anaesthetic is
infiltrated into the incisional port sites at the completion
of the operation. A suction pelvic drain was typically
placed routinely at the completion of the operation.
Following the surgery patients were transferred to the
postoperative recovery area prior to transfer to the ward.
Postoperative analgesia routine included regular non-
opioid analgesia charted for every patient, with opioid
analgesia used only for breakthrough pain relief. On the
ward, patients are reviewed by the operative team twice
daily: in the morning (07:00–08:00) and in the afternoon
(16:00–17:00) ward rounds.

Criteria-led discharge initiative
An initiative to protocolise discharge for patients
undergoing robotic prostatectomy was proposed in 2017
and was fully implemented for all patient undergoing
RALP on December 9. Before the development of the CLD
initiative, a literature review was undertaken and identified
predetermined clinical factors that were supported by
previous research and agreed upon departmentally. The
CLD initiative consisted of 4 criteria patients had to meet
before discharge: a drain output of less than 50 mL, being
hemodynamically stable (heart rate < 100 beats/minute,
systolic blood pressure > 100 mmHg), having passed flatus
or opened their bowels, and the ability to tolerate an oral
diet[6]. The CLD initiative was used as an adjunct to the
ward round. The discharge readiness of patients would
be assessed throughout the day by ward staff who would
then initiate patient discharge.

Data collection
Data were collected on demographic, perioperative, and
pathological variables. Demographic variables included
age, body mass index (BMI), preoperative haemoglobin
(Hb), and prostate volume. Perioperative variables
included console time, blood loss, nerve sparing (non,
unilateral, bilateral) lymph node dissection, Clavien-
Dindo score, length of stay, and 30-day readmission.
Pathological variables data were collected including prostate specific antigen (PSA), T-stage, and ISUP grade group classification. Patients were excluded from this study if they underwent a prostatectomy via other approaches (open or laparoscopic) or sustained a complication of Clavien-Dindo ≥ 3. These patients were excluded as they were unlikely to be suitable for CLD, and a CLD initiative would therefore not be expected to reduce their LOS, and they would require more complex discharge planning.

**Study endpoints**

The primary outcome was LOS, which was recorded as time of discharge following RALP. Secondary outcome measures were the proportion of patients discharged on the first postoperative day and the 30-day readmission rate.

**Statistical analysis**

Descriptive statistics was reported as mean values and portions for categorical variables. Assessment of categorical variables was completed using the Fisher exact test and recorded as a percentage and with P-values to indicate statistical significance. Continuous variables were assessed using an independent student t test, if normally distributed. A two-sided P-values of ≤ 0.05 was considered significant. There were no assumptions made for missing values. Additional multivariable sensitivity analyses with linear regression were conducted considering the baseline characteristics that were collected and have been shown to be associated with increased hospital LOS (age, BMI, prostate volume, lymph node dissection) and were imbalanced between groups (console time, final pathology [ISUP grade, clinical t-stage]) as given by a P < 0.10[7,8]. Statistical analysis was completed using SPSS statistics v27.0 software (IBM Corp, Armonk NY).

**Results**

**Study population**

In total, 218 men were included in this study, with 100 men undergoing RALP before the CLD initiative (December 2017 to January 2019), and 118 men undergoing RALP after introduction of the CLD (February 2019 to August 2020). Fourteen patients developed complications during their inpatient admission and were excluded from final analysis. Demographic and outcome data were available for all patients (Table 1). The mean age of patients was 62 years, and there was no significant difference between the 2 groups in the age, BMI, prostate volume, PSA, and preoperative haemoglobin of the study cohort.

There were statistically significant differences between the groups with the mean total console time being 161 minutes (SD 58.25) in the pre-CLD group compared with 191 minutes (SD 55.75) in the post-CLD group; P < 0.0001, the proportion of patients with final pathology of pT3 disease in the pre-CLD group 40/100

<table>
<thead>
<tr>
<th>TABLE 1. Baseline characteristic of undergoing RALP in the time period before and after the introduction of CLD*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-CLD</strong> (n = 100)</td>
</tr>
<tr>
<td>Age (years)</td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
</tr>
<tr>
<td>Haemoglobin (g/L)</td>
</tr>
<tr>
<td>Prostate volume (cm³)</td>
</tr>
<tr>
<td>PSA (micrograms/L)</td>
</tr>
<tr>
<td>Total console time (minutes)</td>
</tr>
<tr>
<td>Estimated blood loss (mL)</td>
</tr>
</tbody>
</table>

**Nerve sparing, n (%)**

<table>
<thead>
<tr>
<th></th>
<th>Non-nerve sparing</th>
<th>Unilateral nerve sparing</th>
<th>Bilateral nerve sparing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>39 (39)</td>
<td>32 (32)</td>
<td>29 (29)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>46 (39)</td>
</tr>
</tbody>
</table>

**Lymph node dissection, n (%)**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>23 (23)</td>
<td>77 (77)</td>
</tr>
<tr>
<td></td>
<td>28 (24)</td>
<td>90 (76)</td>
</tr>
</tbody>
</table>

**Final pathological data, n (%)**

<table>
<thead>
<tr>
<th></th>
<th>pT2 disease</th>
<th>pT3 disease</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60 (57)</td>
<td>40 (38)</td>
</tr>
<tr>
<td></td>
<td>47 (37)</td>
<td>71 (56)</td>
</tr>
</tbody>
</table>

**Final pathology ISUP grade group, Gleason pattern, n (%)**

<table>
<thead>
<tr>
<th></th>
<th>1 (3 + 3)</th>
<th>2 (3 + 4)</th>
<th>3 (4 + 3)</th>
<th>4 (4 + 4)</th>
<th>5 (4 + 5, 5 + 4, 5 + 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 (3)</td>
<td>45 (45)</td>
<td>24 (24)</td>
<td>17 (17)</td>
<td>11 (11)</td>
</tr>
<tr>
<td></td>
<td>2 (2)</td>
<td>68 (58)</td>
<td>33 (28)</td>
<td>7 (6)</td>
<td>8 (7)</td>
</tr>
<tr>
<td></td>
<td>0.56</td>
<td>0.07</td>
<td>0.51</td>
<td>0.01</td>
<td>0.28</td>
</tr>
</tbody>
</table>

**Clavien-Dindo classification, n (%)**

<table>
<thead>
<tr>
<th></th>
<th>1–2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8 (8)</td>
<td>7 (7)</td>
<td>0 (0)</td>
</tr>
<tr>
<td></td>
<td>5 (4)</td>
<td>6 (5)</td>
<td>1 (1)</td>
</tr>
</tbody>
</table>

*Unless otherwise stated values presented are means with standard deviation.

BMI: body mass index; CLD: criteria-led discharge; ISUP: The International Society of Urological Pathology; PSA: prostate specific antigen; RALP: robotic-assisted laparoscopic prostatectomy; SD: standard deviation.
patients (37.7%) compared with 71/118 patients (56.3%) in the post-CLD group; \( P < 0.004 \), and the proportion of patients with final pathology of ISUP grade group of 4 in the pre-CLD group 17/100 patients (17%) and 7/118 patients (6%) in the post-CLD group, \( P = 0.01 \). There were no statistically significant differences between the 2 groups in estimated blood loss, proportion of patients undergoing nerve sparing or lymph node dissection.

### Outcomes

There was a significant difference found in hospital length of stay with pre-CLD group LOS (mean = 1.8 days, SE = 0.12) being longer than the post-CLD group LOS (mean = 1.4 days, SE = 0.09, \( P = 0.015 \)) (Table 2). Numerically, a lower proportion of patients were discharged on the first postoperative day in the pre-CLD group (55/100 patients, 55%) compared with the post-CLD group (79/118 patients, 67%); however, this result was not statistically significant (odds ratio = 0.60, 95% CI = 0.34 to 1.05, \( P = 0.09 \)). There was no significant difference between the 2 groups for 30-day readmission rates, with a total of 11 (11%) and 10 (9%) patients readmitted in the pre-CLD and post-CLD group, respectively (Table 2).

### Discussion

#### Statement of principal findings

In this cohort study, we found a significantly shorter average LOS for men undergoing RALP after the introduction of CLD compared with those who underwent RALP before CLD. There were no significant between-group differences in the proportion of patients discharged on the first postoperative day and the 30-day readmission rate.

#### Relationship to previous studies

To our knowledge, no previous studies have specifically assessed the effect of CLD in patients undergoing radical prostatectomy for prostate cancer. Several studies have demonstrated a clinical benefit in Enhanced Recovery After Surgery (ERAS) protocols in patients undergoing radical prostatectomy that used a broad “bundle of care” approach with a wide variety of perioperative interventions being collectively implemented at the same time[9]. However, our results are consistent with a recent systematic review of surgical patients that reported reduced hospital LOS and no increase in patient readmission or complication rates with CLD[4]. Notably, a randomised control trial of 131 patients undergoing various surgical procedures in Queensland, Australia, reported that a higher proportion of patients were discharged on time in the CLD-initiated discharge group compared with the usual care group, with a similar mean patient satisfaction score between groups[10]. Similarly, a retrospective study conducted in Leicester, United Kingdom, reported a significantly higher number of patients successfully discharged on the day of surgery after laparoscopic cholecystectomy or laparoscopic inguinal hernia repair in a CLD-initiated discharge compared with a usual care group, with no significant difference between the discharge groups in readmission rates or in the number of patients seeking primary care attention following discharge[11]. Finally, a prospective cohort study from Adelaide, Australia of 83 children with uncomplicated appendicitis reported a 29.2% reduction in median postoperative length of stay (19.6 hours versus 27.7 hours; \( P < 0.001 \)), no significant difference in complication rates, and an annual direct cost savings of approximately AUD77 057 in patients managed with CLD protocol compared with historical-usual-care control group. Overall, our study does support the hypothesis that CLD maybe associated with reduced hospital LOS, with no increase in adverse patient events and the potential to reduced hospital costs.

In our study, we saw an approximate 22% reduction in average hospital LOS following the implementation of CLD. This is within the range of the expected effect previously reported in studies that looked at the impact of CLD on hospital LOS[12]. The reasons why CLD has such an effect on hospital LOS were explored in an interesting multicentre, cohort study of 1071 patients undergoing a variety of “abdominal surgeries” within hospitals in Australia and New Zealand, this study included 207 patients categorised as “renal/urology”[13]. This study

### TABLE 2.

Comparison of study outcomes in the time period before and after the introduction of CLD

<table>
<thead>
<tr>
<th></th>
<th>Pre-CLD (n = 100)</th>
<th>Post-CLD (n = 118)</th>
<th>Mean difference (95% CI)</th>
<th>( P ) value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Length of Stay (days), mean ±SD</td>
<td>1.8 ± 1.24</td>
<td>1.4 ± 0.97</td>
<td>0.4 (0.07–0.66)</td>
<td>0.02</td>
</tr>
<tr>
<td>Proportion of patients discharged on the first postoperative day, n (%)</td>
<td>55 (55)</td>
<td>79 (67)</td>
<td>0.60 (0.34–1.05)</td>
<td>0.09</td>
</tr>
<tr>
<td>30-day readmission rate, n (%)</td>
<td>11 (11)</td>
<td>10 (9)</td>
<td>1.33 (0.53–3.37)</td>
<td>0.65</td>
</tr>
</tbody>
</table>

CI: confidence intervals; CLD: criteria-led discharge; SD: standard deviation.
reported 30% of patients remained in hospital following fulfilment of CLD checklist and that if a CLD were to be fully implemented the hospital LOS would be reduced by 0.8 days ($P < 0.001$). Of patients remaining in the hospital following completion of all criteria in the CLD checklist, approximately two-thirds were reported as being unnecessarily kept in hospital for illegitimate reasons, the main reasons being awaiting removal of lines/drains, surgeon waiting for patient bowels to open, awaiting a test result or consult, and “no specific reason documented.” The authors suggest that CLD leads to improved standardisation in discharge practices, improved patient flow through inpatient facilities, and ultimately improved access to hospital beds. However, patient decision-making needs to be considered, as many patients do not feel ready when confronted with early discharge[14]. Additional preoperative education may be used to offset this.

In 2016, the National Hospital Cost Data Collection found that the average cost for a bed in an Australian public hospital was $1901 per day. An initiative that can reduce the length of stay of patients without increasing complications would represent an important cost-saving method for the public health care system, especially with the use of high-cost technologies in the treatment of prostate cancer. An activity-based funding model was implemented by the Australian government in which a set price is generated for each patient, based on the approximate cost of treatment. This method is used to reduce cost by incentivising the identification of inefficient hospital practices by allowing hospitals to keep any financial surplus.

Hospital LOS is an important driving factor in the cost of patients having a RALP. Previous studies have reported that predictive factors for increased hospital LOS after RALP were patient age, increased medical comorbidities, BMI, smoking, prostate volume, operative time, need for pelvic lymph node dissection, and the development of a postoperative complication[7,8]. Of note, most of these predictive factors are unmodifiable factors. More recently, possibly influenced by COVID-19 limiting hospital bed access, several authors have demonstrated the feasibility of “outpatient” or “day-surgery” RALP[15–17]. However, this approach may not be easily generalisable as these procedures were performed in highly selected patient populations in extremely high-volume centres with an intense level of perioperative coordination and multidisciplinary care. Nonetheless, these studies at the very least are an important “proof-of-concept” that demonstrate significant improvements can still be made in hospital LOS following RALP.

**Limitations**

Because of the before and after nature of the study design, we cannot exclude a simple temporal effect on hospital LOS. However, causality is supported by the statistically significant strength of the association in our primary outcome and by the between-group differences at baseline, and in particular, the increased operative time and higher grade/stage pathology at baseline in the post-CLD group compared with the pre-CLD, which are predictive factors that have been associated with increased hospital LOS[7,18]. Another limitation of our study is that we did not collect data on the use of other cointerventions that may be associated increased hospital LOS such as analgesia and antiemetics used perioperatively. Poorly controlled pain is known to be associated with a slower time to mobilise and can lead to an increased length of stay[19,20]. Additionally, while drain output is included in our CLD protocol we recognise that many centres do not routinely leave a drain following RALP, and we have moved to only leaving an abdominal drain in selective patients.

**Conclusion**

Within our study population, we have demonstrated that the introduction of CLD was associated with reduced hospital LOS and no increase in 30-day readmission rates in patients undergoing a RALP for prostate cancer. CLD is a low-cost, pragmatic, and relatively easy-to-implement initiative that does not appear to negatively impact patient safety. This could also lead to improved bed availability and decreased costs to the health care system. These findings support the investigation of CLD in other urological procedures.
References


