

## Robotic Assist in the OR: Science FACT!

### The da Vinci “Code”

Our Speaker today is:  
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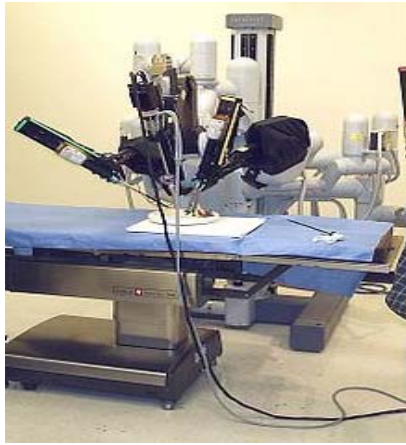
*Lori-Lynne is an independent coding , compliance, and auditing specialist. She has 20+ years of multi-specialty coding experience and teaches coding, compliance and auditing skills for clinical and clerical staff, utilizing AMA curriculum.*

*In addition to performing physician based coding and auditing services for St. Alphonsus Physician Services, she is a contributing author & Audio presenter for HCPro's Justcoding.com, a national speaker and presenter for “The Coding Institute, AHIMA and IdHIMA, plus contracts independent audit and education services for private practice physicians and facilities. She also has an informative blog for coding assistance that can be found at:*

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## Robotic Assisted Surgery – New Technologies



**I know a lot of you are struggling with how to code for robotic assisted surgery. Inpatient facility coders have the "luxury" of using the ICD-9 procedure codes which are much more descriptive and really "tell the story"... but coding for physician fees with CPT, it is much more difficult.**

## Robotic Assisted Surgery – New Technologies



## Robotic Assisted Surgery -- MIS

**Robotic-assisted surgery, also known as “minimally invasive surgery” (MIS), has become almost commonplace in hospital operating suites throughout the United States, predominantly with the da Vinci® robotic system or the ZEUS® robotic system.**

## Robotic Assisted Surgery

**The use of robotics in surgery continues to evolve, and this poses challenges for hospitals and providers to stay abreast of these changes.**

**In turn, coders may also struggle to stay current in terms of how to code for these procedures.**

## Pros and Cons of Robotic Surgery

### ● Pros:

- Allow exact Micro-movements for surgeons as a laparoscopic procedure
- 3D Imaging
- The ability to rotate the equipment/instruments 360 degrees.
- Quicker healing & recovery time for the patient

## Pros and Cons of Robotic Surgery

### ● Cons:

- Purchase price of the equipment
- Longer operating room times and turn around times
- Finding Qualified Physicians and Operating Room staff to operate the equipment
- Insurance Company resistance to paying for procedures performed “robotically”

## Background – Where it came from....

- This was named for Leonardo da Vinci, who invented the first robot
- Developed in 1999 by Intuitive Surgical, Inc  
*da Vinci® Surgical System*
- da Vinci also known as a *MIS* or *Minimally Invasive Surgery system*
- Over 1000 are currently in use in the United States
- Costs aprox 1.5 million for the unit itself, and up to \$300-500,000 for accessory add-ons

## Fast-forward to today:

- **Currently, gynecologic and urologic surgeries are the most common surgical procedures physicians are performing with MIS.**
- **Physicians perform both MIS-assisted prostatectomies and MIS-assisted hysterectomies, *which are two very different procedures*, with nearly the same five small 1/4" incisions instead of the usual open or laparoscopic incisions**

## Fast forward to today:

- Robotic-assisted surgical procedures also allow patients to have shorter lengths of stay in the hospital.
- Normally patients who undergo these procedures *without* the robotic assistance have a length of stay of three to five days.
- Physicians performing these procedures *with* the MIS patients routinely have a length of stay of one to two days.

\*Note that coders need to be diligent in determining the appropriate *place of service (POS)* to coordinate with the length of stay.

## The *da Vinci*® Surgical System Equipment

What does it look like????

## What the equipment looks like....

1. Micro-precision tools of the robotic device.
2. Hand paddle assembly for the surgeon



## What the equipment looks like....

- What the physician looks like as they are performing the procedures in the Operating Room



## What the equipment looks like....

A picture from an actual operating room of a physician using a da Vinci assist device



## Robotics & Patient Safety

- Many patients have concerns about safety.
- *The da Vinci Surgery MIS* is as safe as traditional methods.
- Has been used successfully in tens of thousands of minimally invasive procedures **worldwide**.
- Is the least invasive surgical approach and is as safe as traditional surgical methods.
- The *da Vinci* System cannot be programmed, or make decisions on its own.
- The *da Vinci* System **requires** that every surgical maneuver be performed with direct input from the surgeon.



## Procedures with a *da Vinci*® Surgical System Assist

### Urologic Procedures Include:

- Cystectomy
- Partial nephrectomy
- Radical/complete nephrectomy
- Pyeloplasty
- Radical prostatectomy

## Procedures with a *da Vinci* Assist

### General surgery :

- Gastric bypass
- Low anterior resections
- Pulmonary lobectomy
- Cholecystectomy
- Nissen fundoplication
- Splenectomy
- Adrenalectomy
- Appendectomy
- Hernia repair

## Procedures with a *da Vinci*® Surgical System Assist

### **Gynecologic**

- Hysterectomy
- Myomectomy
- Sacrocolpopexy

### **Cardio/thoracic**

- Mitral valve repair
- Revascularizations

## Procedures with a *da Vinci* Assist

### **Head/Neck/thyroid**

- Thymectomy

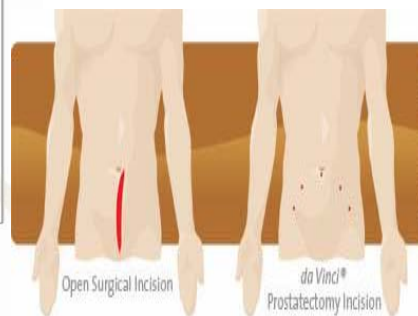
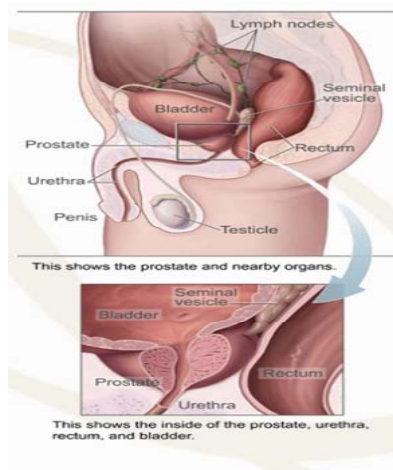
### **Orthopaedic**

- Total hip replacement
- Total knee replacement

Let's start with the "Male" side of things



## Prostate Cancer 101 – Anatomy



## Prostate Cancer Statistics

1. Prostate cancer is the most common non-skin malignancy in men
2. Responsible for more deaths than any other cancer, except for lung cancer.
3. Microscopic evidence of (prostate) cancer is found at autopsy in many if not almost all men.
4. The American Cancer Society (ACS) estimated that about 218,890 new cases of prostate cancer were diagnosed in the United States during 2007.
5. About 1 man in 6 will be diagnosed with prostate cancer during his lifetime, but only 1 man in 34 will die of it.
6. A little over 1.8 million men in the United States are survivors of prostate cancer.

## Prostate Cancer – Prognosis & Treatment options

These factors determine the prognosis & Treatment options available

- The stage of the cancer
- The Gleason score
- The patient's age and general health

## What the DaVinci can do & Prostate Cancer Tx

### Effective Cancer Control:

1. Studies have shown that experienced surgeons have achieved excellent results in removing prostate cancer without leaving cancer cells behind.
2. Improved and Early Return of Sexual Function:
3. Studies have shown that most patients have a rapid return of sexual function.

## What the DaVinci can do for Prostate Cancer tx

### Improved and Early Return of Continence:

1. Studies have shown that most patients have a rapid return of urinary incontinence.
2. Improved Results Over Traditional Surgical/Radiation Treatments:
3. Patients may benefit from surgical treatment of localized prostate cancer, the established gold standard, as compared to radiation.
4. Surgery has a higher and longer survival rate than radiation or other treatments. Surgery also has a lower risk of long-term complications than radiation treatments.

## What it looks like in use....

You Tube – Video DaVinci 101

Robotic Prostatectomy  
Greg Hallman, MD  
Russell Felker, MD

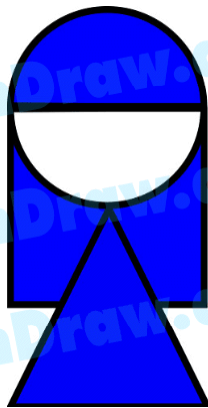
Music by  
The Alan Parsons Project  
I Robot

[http://www.youtube.com/watch?v=ME3FziQk\\_vs&feature=email](http://www.youtube.com/watch?v=ME3FziQk_vs&feature=email)

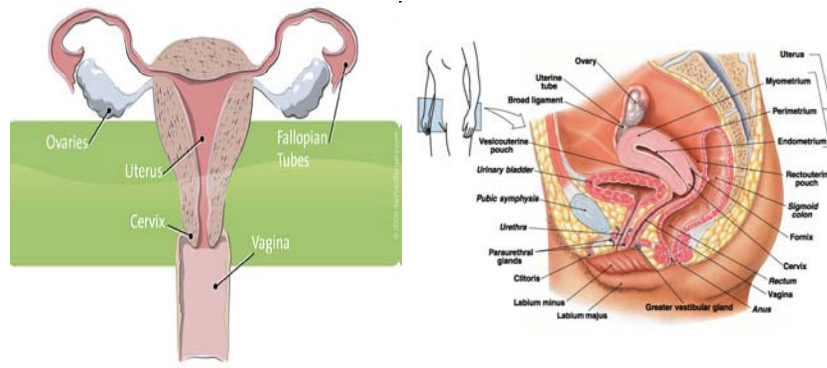
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src="http://www.youtube.com/embed/ME3FziQk\_vs" frameborder="10"></iframe>

## The “Female” side of things....



# Female Anatomy 101



## Uterine Cancer - Hysterectomy

### Treatments for Cancer

- A wide variety of gynecologic cancers can affect a woman's reproductive system,
  - which consists of the uterus, vagina, ovaries and fallopian tubes.
  - The uterus is a hollow, muscular organ that holds a baby as it grows inside a pregnant woman.
  - The fallopian tubes and ovaries are located on either side of the uterus.

## Uterine Cancer - Hysterectomy

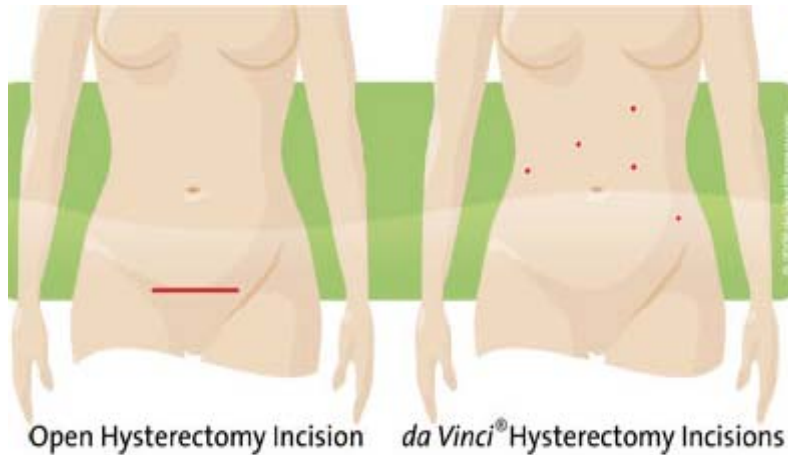
- The most common types of gynecologic cancers are cervical, endometrial (uterine) and ovarian cancer.
- The specific type of cancer a woman has and how advanced it is, will determine her available treatment options.
- In the United States ,approximately 42,000 women each year are diagnosed with uterine cancer.
- Uterine Cancer is the most common malignancy of the female genital tract and the 4<sup>th</sup> most common cancer diagnosis in women.

## Uterine Cancer - Hysterectomy

- Women with early stage gynecologic cancer are often treated with hysterectomy –
  - the surgical removal of the uterus.
  - In this procedure, the doctor may also remove the ovaries, fallopian tubes and/or select lymph nodes.
  - Hysterectomy is the second most common surgical procedure for women in the US.
  - An estimated one third of all U.S. women will have a hysterectomy by age 60.



## da Vinci port placement vs/Traditional incision



## The Video – da Vinci Hysterectomy



- **Robotic-Assisted Laparoscopic Hysterectomy (RALH)**
- **This video provides an explanation of the Robotic-Assisted Laparoscopic Hysterectomy (RALH) procedure and the benefits it provides to patients. The surgical procedure in this video is performed by Dr. Vadim Morozov.**
- [http://www.umm.edu/media/video/misc\\_ralh.htm](http://www.umm.edu/media/video/misc_ralh.htm)
- <http://www.youtube.com/watch?v=U5dOavk0plg>

# The Operative Report:

**OPERATIVE REPORT** Total laparoscopic hysterectomy using the da Vinci robotic equipment.

The abdomen and vagina were prepped and draped in the normal sterile fashion. A Foley catheter was inserted. A long weighted speculum was placed into the vagina and an anterior wall retractor was placed into the vagina. The cervix was grasped with a single-tooth tenaculum and the uterus was sounded to 7.5 cm and was anterior.

The balloon manipulator was then properly placed. The balloon was filled to approximately 3 cc of saline. The cervical cup was placed around the cervix. A sterile glove filled with a lap pad was then placed inside the vagina to help with pneumoperitoneum. An 11 mm port was placed in the left upper quadrant just under the inferior costal margin. Adequate pneumoperitoneum was obtained. A 12 mm port was placed supraumbilically and the 12 mm trocar was placed through that port. The da Vinci camera was then placed supraumbilically. 3 more ports were then placed. The 11 mm port was then placed in the left upper quadrant and there were two 8 mm ports that were placed 10 cm laterally to the umbilicus and 2 cm inferiorly. The da Vinci robot was then docked in the normal fashion. The patient was placed in steep Trendelenburg positioning.

Inspection of the pelvis showed a normal uterus, ovaries and tubes. The right fallopian tube was cauterized using the PK bipolar cautery and was ligated using the hot shears. The utero-ovarian ligament was also coagulated and cut. The round ligament was coagulated and cut. A bladder flap was created with the hot shears and the bladder was dissected down from the cervix.

This entire procedure was then repeated on the left side. The blue balloon cuff was then identified and an incision was made in the cervicovaginal junction on top of the vaginal cuff. This was also repeated posteriorly. The incision was extended laterally, freeing the uterus from the surrounding vagina. The uterus was then delivered posteriorly through the vagina using the robotic assistant. The vaginal cuff was closed with four figure-of-eight sutures of 0 Vicryl. The ureters were identified bilaterally. The entire pelvis was hemostatic. The supraumbilical site was closed with a suture of 0 Vicryl. The skin was closed with 4- 0 Monocryl using subcuticular stitches. Steri-Strips were placed. The final needle, sponge and instrument count was correct. The patient tolerated the procedure well. Patient to the recovery room in good condition.

# Procedure & Diagnosis Codes

## **Codes ICD-9-3CM:**

68.41 Laparoscopic total abdominal hysterectomy  
17.42 Laparoscopic robotic assisted procedure

## **Codes CPT**

### **58570 - Codes ICD-9-3CM:**

68.41 Laparoscopic total abdominal hysterectomy  
17.42 Laparoscopic robotic assisted procedure

## **Codes CPT**

58570 Laparoscopy, surgical, with total hysterectomy, for uterus 250g or less  
S2900 Surgical techniques requiring use of robotic surgical system (list separately in addition to code for primary procedure)

Final Diagnosis: Uterine Carcinoma (malignant) with pelvic pain.

Dx Codes: 179, 625.9

## CODING ROBOTICS 101

Coding Hints:

Hospital based ICD-9 Vol 3 Procedures

Provider Based CPT Procedures

## Inpatient Coding Ques....

- For inpatient coders, use the following ICD-9-CM-3 procedure codes, (which CMS introduced in 2008) to identify procedures performed with robotic assistance.
- According to the ICD-9 CM-3 Chapter 17 instructions: inpatient coders are to code the ***primary procedure code*** first, then add the robotic code(s) as a ***secondary code***. The list below identifies the robotic codes –

## Inpatient Coding Ques ICD-9 Volume 3:

- **17.41 (open robotic assisted procedure)**
- **17.42 (laparoscopic robotic assisted procedure).**
- **17.43 (percutaneous robotic assisted procedure)**
- **17.44 (endoscopic robotic assisted procedure)**
- **17.45 (thoracoscopic robotic assisted procedure)**
- **17.49 (other and unspecified robotic assisted procedure)**

## Outpatient Coding Ques:

- **In regard to professional fees (Physician fees) and billing, CPT has lagged behind in getting codes to reflect MIS.**
- **CPT does not currently have any codes specifically designated for “robotic” assistance. If the surgeon is performing procedures with a robotic assist , you are directed to code the “nearest” code for what the surgeon performed.**
- **Depending on what the surgeon documented, you should use the code-set for open, laparoscopic, or unlisted code (s) then add HCPCS code S2900.**

## Outpatient Coding Ques

- HCPCS code **S2900** is **ONLY** for use with private payors, and not applicable for Medicare/Medicaid/Tricare claims.
- Include in the *notes* section of your claim, "procedure performed with a robotic surgical assist device".
- **DO NOT APPEND MOD 22, 59, or 52.**

Keep your pricing the same as it would be if done as a traditional laparoscopic or open procedure.

## Robotic-Assisted Radical Prostatectomy Coding and Reimbursement:

- |   |   |
|---|---|
| ● <b>CPT-55866</b>  | ● <b>CPT-55899</b>                        |
| ● Laparoscopy, surgical prostatectomy, retropubic, radical, including nerve sparing | ● Unlisted procedure, male genital system |

### Coding and Reimbursement Gynecology via the da Vinci Surgical System

- **58541**-Laparoscopy, surgical, supracervical hysterectomy, for uterus 250 g or less
- **58542**-with removal of tube(s) and/or ovary(s)
- **58543**-Laparoscopy, surgical supracervical hysterectomy, for uterus greater than 250 g
- **58544**-with removal of tube(s) and/or ovary(s)
- **58548**-Laparoscopy with radical hysterectomy, with bilateral total pelvic lymphadenectomy and para-aortic lymph node sampling (biopsy), with removal of tube(s) and ovary(s), if performed

### Coding and Reimbursement Gynecology via the da Vinci Surgical System

- **58550**-Laparoscopy, surgical, with vaginal hysterectomy, for uterus 250 g or less
- **58552**- with removal of tube(s) and/or ovary(s)
- **58553**-Laparoscopy, surgical, with vaginal hysterectomy, for uterus greater than 250 g
- **58554**-with removal of tube(s) and/or ovary(s)
- **58578**-Unlisted laparoscopy procedure, uterus

## “T” Codes – Category III Emerging Technology

- At this time there are no “T” codes to append with the CPT coding and billing processes
- The AMA is in the process of developing more and more Category III “T” codes, so the more we use the robotic assist, the more apparent it is that we work and advocate to CPT to include a code for this technology.
- Check out the proposed CPT category III codes being looked at for inclusion in the 2012 code-sets at [http://www.codingbooks.com/Assets/AMA\\_CPT\\_Category\\_III\\_Codes\\_Update\\_August\\_2010%281%29.pdf](http://www.codingbooks.com/Assets/AMA_CPT_Category_III_Codes_Update_August_2010%281%29.pdf)

## Payer Denial Letters – Pre Auth

- Some payers refuse to allow a robotic surgical assist in the OR.
- Pre-authorize and get in writing what the payer will/will not consider
- Write letter of medical request stating the “medical necessity” or reasons why this would be advantages for your patient

# Insurance Denial Letter

*This is text from an actual letter denying robotic assistance (sept 2010)*

Dear Dr. \_\_\_\_\_:

We have received your initial request for reconsideration of benefits for robotic assistance. This notice is to inform you that based upon a review of the member's policy, your request has been denied.

Under the terms of the member's policy, robotic assistance must be determined to be medically necessary in order for the proposed service, supply, drug or other charges to be covered. The service does not meet our medical necessity guidelines, specifically no studies are presented indicating significant health benefits.

The member has been advised of this determination and may appeal. Any reconsideration submitted by you as the provider will not impact the member's appeal rights under their policy. Please be advised that a provider cannot exercise appeal right on behalf of a member unless the member has appointed the provider as their authorized representative by completing an "appointment of authorized representative form.

If you have questions regarding this matter, please contact the customer service department provider on the back of the member's ID card.

Sincerely,

Pre-Service Review

## Payer policy updates...Good News

- In response to the original denial letter in the previous slide... The payer has reconsidered their policy, and a revision will be made... Here's the text from the actual policy revision letter....



## Policy Update letter....

Actual update letter text received January 2011

Dear Dr \_\_\_\_\_:

I have been asked to respond to your recent correspondence regarding our policy concerning robotic surgery. I appreciate your concern that our policy creates confusion in the minds of some surgeons since we state the robotic surgery is not medically necessary.

We will revise our policy in the near future to state that robotic surgery may be considered medically necessary. We will, however, not provide additional reimbursement for the use of robotics. This is in consonance with the reimbursement policies of the three managed care organizations you kindly provided. Thank you for your interest in our medical policies.

Sincerely

Dr. \_\_\_\_\_ MD, FAAP

Medical Director

## Denial on pre-auth – What next?

- Determine if your provider wants to appeal for policy change with a insurance payer
- Determine if the patient wants to proceed with the robotic assist.
- If patient **wants to proceed with robotics**
  - ... have patient sign an advanced beneficiary type notice denoting that they may be 100% financially responsible for their surgery pending insurance denial.
  - Collect payments up front from your patient per your normal office and/or hospital policy
- If patient **does not want to proceed with robotic assist**
  - consider and/or perform surgery as a traditional laparoscopic or open procedure.
  - Collect payments up front from your patient as per your normal office and/or hospital policy

## Full Disclosure on your claims

- In the light of full disclosure – always denote on the notes line of your claim usage of a robotic assist in surgery (whether it be a CMS 1500 or a UB)

## Conclusion: What we learned

1. What Robotic Assisted Surgery is
2. Uses in varied Surgical Operations
3. What an actual surgery looks like
4. How to code for robotics – both facility based and physician based
5. Pre-authorization's and Payer Policies
6. Glossary of terms (see separate word document)

## Q&A

Questions from the audience ?????

## References

- Intuitive Surgical Systems \* The da Vinci Surgical System - © Intuitive Surgical, Inc.  
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- HCPCS (cms.hhs)
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## Thank you for sharing your time with me!

I really appreciate you being such a GREAT audience!!!!

