NAACCR 2008-2009 Webinar Series

# COLLECTING CANCER DATA: BLADDER

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# Agenda

- Introduction
- Bladder Overview
  - Quiz
- Multiple Primary Histology Rules
  - Quiz
- Break
- Collaborative Staging
  - Quiz
- Diagnostic, Staging and Treatment
  - Quiz

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**OVERVIEW OF THE BLADDER** 

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#### **Bladder Wall Involvement**

- Mucosa = epithelium, transitional epithelium, urothelium, mucosal surface, transitional mucosa
  - No invasion of basement membrane is in situ
  - Invasion of basement membrane is invasive
- Lamina propria = submucosa, suburothelial connective tissue, subepithelial tissue, stroma, muscularis mucosa, transitional epithelium
  - Involvement is invasive
- Muscle = muscularis, muscularis propria, muscularis externa, smooth muscle
  - Involvement is invasive



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#### **Bladder Subsites** Priority order for coding bladder subsites C67.1 Dome Op report •Path report C67.2 Lateral wall C67.3 Anterior wall C67.6 Ureteral orifice •Assign C67.9 when primary is multifocal in C67.0 Trigone C67.5 Bladder neck more than 1 bladder subsite C61.9 Prostate •Code to bladder subsite with invasive tumor if invasive tumor in 1 Image source: SEER Training Website subsite and in situ tumor in other subsites

# Papillary vs. Flat Bladder Tumors Types of Bl

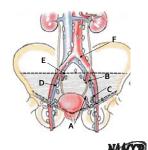
# Regional Lymph Nodes for Bladder

#### <u>Bladder</u>

- •Perivesical (A)
- •Iliac, internal (hypogastric) (B)
- •Obturator (C)
- •Iliac, external (D)
- •Sacral (E), presacral
- •Pelvic, NOS (all nodes within shadowed area)

#### **Distant Lymph Nodes**

•Iliac, common (F)



#### **Multifocal Bladder Cancer**

- Field effect theory
  - Urothelium undergoes widespread change making it more sensitive to malignant transformation
- Implantation theory
  - Tumor cells lose attachments and float in the urine until they implant on another site

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# **Bladder Cancer Histology**

- Urothelial (transitional cell) carcinoma
  - May be papillary or non-papillary
  - 90% of bladder cancers in U.S.
- Squamous cell carcinoma
  - Up to 5% of bladder cancers in U.S.
- Adenocarcinoma
  - 1% to 2% of bladder cancers in U.S.



#### **Bladder Cancer Grade**

- Grade is a prognostic factor for bladder cancer
  - High grade tumors have a worse prognosis
  - Low grade noninvasive tumors in young patients have a better prognosis
- Grade may affect treatment choices
- Three-grade system may be used for bladder cancer



#### **Bladder Cancer Grade**

•Converting a grade to a code in a 3-grade system

Term	Grade	Code
1/3, 1 / 2	Low grade	2
2/3	Intermediate grade	3
3/3, 2/2	High grade	4



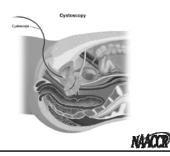
# Diagnostic Procedures for Bladder Cancer

- Imaging
  - CT of abdomen & pelvis
  - CT Urogram
  - Kidneys, ureter, bladder (KUB) x-ray
  - Intravenous pyelogram (IVP)



# Diagnostic Procedures for Bladder Cancer

- Cytology
- Cystoscopy with biopsy



2007 Rules

# MULTIPLE PRIMARY AND HISTOLOGY

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## **MP/H Rules**

- A flat tumor is a non-papillary bladder tumor that lies flat against the bladder tissue.
- Flat tumors usually have a poor prognosis.
  Noninvasive flat TCC grows in the layer of cells closest to the inside of the bladder and appears as flat lesions on the inside surface of the bladder.



#### **Urothelial Carcinoma**

<b>Urothelial/Transitional Cell Tumors</b>	Code
With squamous differentiation	
With glandular differentiation	
With trophoblastic differentiation	0
Nested	8120
Microcystic	
Transitional cell, NOS	



#### **Urothelial Carcinoma**

Papillary carcinoma Papillary transitional cell	8130	
Micropapillary	8131	
Lymphoepithelioma-like Plasmacytoid	8082	
Sarcomatoid	8122	
Giant cell	8031	
Undifferentiated	8020	
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# **Multiple Primary Rules**

- Rule M1
  - When it is not possible to determine if there is a single tumor or multiple tumors, opt for a single tumor and abstract as a single primary.
- Rule M2
  - A single tumor is always a single primary.



# **Multiple Tumors**

- Rule M<sub>3</sub>
  - When no other urinary sites are involved, tumor(s) in the right renal pelvis AND tumor(s) in the left renal pelvis are multiple primaries.
- Rule M4
- When no other urinary sites are involved, tumor(s) in both the right ureter AND tumor(s) in the left ureter are multiple primaries



## **Multiple Tumors**

- Rule M<sub>5</sub>
  - An invasive tumor following a non-invasive or in situ tumor more than 60 days after diagnosis is a multiple primary.



# **Multiple Tumors**

- Rule M6
  - Bladder tumors with any combination of the following histologies are a single primary :
  - Papillary carcinoma (8050)
  - Transitional cell carcinoma (8120-8124)
  - Papillary transitional cell carcinoma (8130-8131)



# **Pop Quiz**

 A patient with a history of recurrent papillary transitional cell carcinoma originally diagnosed in 1997 now presents for a TURB and is found to have new tumor.



## **Pop Quiz**

- According to rule M6 the new tumor would be considered the same primary if the histology was:
  - Papillary transitional cell carcinoma
  - Papillary urothelial cell carcinoma
  - Transitional cell carcinoma
  - Transitional cell carcinoma with sarcomatoid features
  - Transitional cell carcinoma with squamous differentiation
  - Squamous cell carcinoma



# **Multiple Tumors**

- Rule M7
  - Tumors diagnosed more than three (3) years apart are multiple primaries



# **Multiple Tumors**

- Rule M8
  - Urothelial tumors in two or more of the following sites are a single primary
  - Renal pelvis (C659)
  - Ureter(C669)
  - Bladder (C670-C679)
  - Urethra /prostatic urethra (C68o)



## **Pop Quiz**

 A patient with a history of transitional cell carcinoma of the left ureter diagnosed in 2004 now presents for TURB and is found to have a papillary transitional cell carcinoma of the bladder wall.



# **Pop Quiz**

- What rule would you use to determine the number of primaries?
- What if the first tumor had been diagnosed in 2006?



# **Multiple Tumors**

- Rule M9
  - Tumors with ICD-O-3 histology codes that are different at the
  - first (Xxxx)
  - second (xXxx) or
  - third (xxXx)

Number are multiple primaries.



## **Multiple Tumors**

- Rule M10
  - Tumors in sites with ICD-O-3 topography codes with
  - Different second (CXxx) and/or
  - Third characters (CxXx) are multiple primaries



# **Multiple Tumors**

- Rule M11
  - Tumors that do not meet any of the above criteria are a single primary.

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## Histology

MP/H

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# **Single Tumor**

- Rule H1
  - Code the histology documented by the physician when there is no pathology/cytology specimen or the pathology/cytology report is not available.
- Rule H2
  - Code the histology from the metastatic site when there is no pathology/cytology specimen from the primary site

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# **Single Tumor**

- Rule H<sub>3</sub>
  - Code 8120 (transitional cell/urothelial carcinoma) when there is:
    - · Pure transitional cell carcinoma
  - Flat (non-papillary) transitional cell carcinoma
  - Transitional cell carcinoma with squamous differentiation
  - Transitional cell carcinoma with glandular differentiation
  - Transitional cell carcinoma with trophoblastic differentiation
  - · Nested transitional cell carcinoma
  - · Microcystic transitional cell carcinoma



## **Single Tumor**

- Rule H4 Code 8130 when there is:
  - · Papillary carcinoma or
  - Papillary transitional cell carcinoma or
  - Papillary carcinoma and transitional cell carcinoma



## **Single Tumor**

- Rule H<sub>5</sub>
  - Code the histology when only one histologic type is identified
  - Note: Only code squamous cell carcinoma (8070) when there are no other histologies present (pure squamous cell carcinoma).
- Rule H6
  - Code the invasive histologic type when a single tumor has invasive and in situ components.



# **Single Tumor**

- Rule H7
  - Code the most specific histologic term Example:

Carcinoma NOS and transitional cell carcinoma Code: transitional cell carcinoma 8120

- Rule H8
  - Code the histology with the numerically higher ICD-O-3 code



# MULTIPLE TUMORS ABSTRACTED AS A SINGLE PRIMARY

- Rule H9
  - Code the histology documented by the physician when there is no pathology/cytology specimen or the pathology/cytology report is not available
- Rule Had
  - Code the histology from the metastatic site when there is no pathology/cytology specimen from the primary site.



## **Multiple Tumors**

- Rule H<sub>11</sub>
  - Code 8120 (transitional cell/urothelial carcinoma) (See Table 1)
- Rule H12
  - Code 8130 (papillary transitional cell carcinoma) (See table 1)
- Rule H<sub>13</sub>
  - Code the histology when only one histologic type is identified



# **Multiple Tumors**

- Rule H14
  - Code the histology of the most invasive tumor.
  - If one tumor is in situ and one is invasive, code the histology from the invasive tumor.
  - If both/all histologies are invasive, code the histology of the most invasive tumor.



# **Pop Quiz**

- A patient is found to have two bladder tumors diagnosed at the same time.
  - The first is a transitional cell carcinoma with squamous differentiation with invasion into the lamina propria.
  - The second is a papillary transitional cell carcinoma with invasion of the muscularis propria.



## **Pop Quiz**

- What rule would we use to determine the histology?
  - H<sub>11</sub>
  - H12
  - H13
  - H14
  - H15



# **Multiple Tumors**

- Rule H<sub>15</sub>
  - Code the histology with the numerically higher ICD-O-3 code.

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# **Multiplicity Counter**

- Counts number of tumors (multiplicity) abstracted as a single primary
- The number of multiple tumors in Multiplicity Counter is only updated once, at the time of the first subsequent tumor. Do not update again.

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## **Pop Quiz**

- A patient was originally diagnosed with invasive ptcc on 1/2/07. She was found to have a new ptcc on 4/6/07 and another on 12/4/07.
  - How many times would the registrar have to update the multiplicity counter?

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# COLLABORATIVE STAGING DATA ITEMS FOR BLADDER

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#### **CS Tumor Size** DESCRIPTION CODE 000 No mass found 001-988 Exact size in mm 989 mm or larger 989 Microscopic focus or foci only 990 991 Less than 1 cm Less than 2 cm OR greater than 1 cm OR 992 between 1 cm and 2 cm Less than 3 cm OR greater than 2 cm OR 993 between 2 cm and 3 cm Less than 4 cm OR greater than 3 cm OR 994 between 3 cm and 4 cm Less than 5 cm OR greater than 4 cm OR between 4 cm and 5 cm Unknown 999

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#### **CS Tumor Size**

- Example
  - Urothelial carcinoma in 4 bladder tumors; 1.3 cm,
     2.5 cm, 0.8 cm, and 2.1 cm in size
    - CS tumor size = 025

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#### **CS Extension Bladder Notes**

- Distinguishing noninvasive and invasive bladder cancer
- Definite statements of non-invasion for papillary transitional cell carcinoma (extension code o1)
- Inferred descriptions of non-invasion for papillary transitional cell carcinoma(extension code o3)
- Terms lamina propria and submucosa are used interchangeably



#### **CS Extension Bladder Notes**

- 5. Definitions for invasion of mucosa grade 1 or grade 2 vary by pathologist



#### **CS Extension Bladder Notes**

- 7. Statements meaning confined to mucosa, NOS (code 10)
  - a. Confined to mucosal surface
  - b. Limited to mucosa, no invasion of submucosa and muscularis
  - c. No infiltration/invasion of fibromuscular and muscular stroma
  - d. Superficial, NOS



#### **CS Extension Bladder Notes**

8. Extension Description

o1 or o3 Confined to mucosa AND

papillary

10 Confined to mucosa

9. Extension Description

40 Periureteral = portion of

ureter intramural to bladder

60 All other periureteral

involvement



CS extension code derives Ta or Tis

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#### **CS Extension Bladder**

- Code o1
  - Papillary transitional cell carcinoma stated to be noninvasive
    - Derived Ta
- Code o3
  - Papillary transitional cell carcinoma with inferred description of non-invasion
    - Derived Ta



#### **CS Extension Bladder**

- Code o6
  - Sessile carcinoma in situ
  - Derived Tis
- Code 10
  - Confined to mucosa, NOS
  - Derived Tis



#### **CS Extension Bladder**

- Code 15
  - Invasive tumor confined to subepithelial connective tissue
  - Extension into Von Brunn's nest (within lamina propria)
  - Derived T1
- Code 30
  - Localized, NOS
  - Derived T1



#### **CS Extension Bladder**

- ◆ Code 20
  - Muscle invaded, NOS
    - Derived T2NOS
- Code 21
  - Muscle invaded: superficial muscle, inner half
  - Derived T2a
- Code 22
  - Muscle invaded: deep muscle, outer half
    - Derived T2b



#### **CS Extension Bladder**

- Code 23
  - Extension through full thickness of bladder wall
  - Derived T<sub>3</sub>a
- Code 40
  - Adventitia; extension to/through serosa; peritoneum; periureteral fat/tissue; perivesical fat/tissue, NOS
    - Derived T<sub>3</sub>NOS
- Code 41
  - Extension to perivesical fat (microscopic)
  - Derived T<sub>3</sub>a
- Code 42
  - Extension to perivesical fat (macroscopic); extravesical mass
    - Derived T<sub>3</sub>b



#### **CS Extension Bladder**

- Code 45
  - Stated as T4, NOS
  - Derived T4NOS
- Code 6o
  - Prostate; ureter; urethra, including prostatic urethra
  - Derived T4a



#### **CS Extension Bladder**

- Code 65
  - Parametrium; rectovesical/Denonvilliers'fascia; Vas deferens, seminal vesicle
    - Derived T4a
- Code 67
  - Uterus; vagina
    - Derived T4a



#### **CS Extension Bladder**

- Code 70
  - Bladder is FIXED
    - Derived T<sub>4</sub>b
- Code 75
  - Abdominal wall; pelvic wall
  - Derived T4b
- Code 8o
  - Further contiguous extension including: pubic bone; rectum, male; sigmoid
    - Derived T4b



#### **CS Extension Bladder**

- ◆ Code 95
  - · No evidence of primary tumor
  - Derived To
- Code 99
  - Unknown extension; primary tumor cannot be assessed; not documented in patient record
    - Derived Tx

Code



## CS Tumor Size/Ext Eval Bladder

<u>Description</u> Clinical only

Invasive techniques
 Autopsy (known or suspected dx)
 Pathology
 Pre-op tx; clinical eval
 Pre-op tx; pathologic eval
 Autopsy (tumor unsuspected)

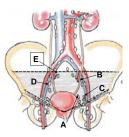
Unknown

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## **CS Lymph Nodes Bladder**

#### <u>Bladder</u>

Regional Lymph Nodes
Perivesical (A)
Iliac, internal (hypogastric) (B)
Obturator (C)
Iliac, external (D)
Sacral (E), presacral
Pelvic, NOS (all nodes within shadowed area)



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# **CS Lymph Nodes Bladder**

- Code oo: derived No
  - No regional node involvement
- Code 10: derived N1
  - ullet Single regional lymph node less than or equal to 2 cm
- ◆ Code 20: derived N2
  - Single regional lymph node greater than 2 cm and less than or equal to 5 cm
  - Multiple regional nodes, none greater than 5 cm
- Code 30: derived N3
  - Regional lymph node(s), at least one greater than 5 cm



## **CS Lymph Nodes Bladder**

- Code 50: derived N1
  - Regional nodes, NOS (size and/or number not stated)
- Code 80: derived N1
  - Lymph nodes, NOS
- Code 99: derived Nx
  - Unknown



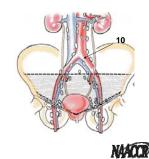
#### **CS Mets at DX Bladder**

- Code oo
  - No; none
- Code 10
  - Distant lymph nodes: common iliac
- Code 11
  - Distant lymph nodes, NOS; Specified distant lymph nodes other than code 10
- Code 40
- Distant metastases except distant lymph nodes
- Code 50
  - (40) + any of [(10) or (11)]
- Code 99Unknown



#### **CS Mets at DX Bladder**

Code 10: Distant lymph nodes – common iliac



## **Pop Quiz**

• Path report for bladder cancer patient stated: grade III/IV invasive transitional cell carcinoma; no smooth muscle invasion. The physician documented Ta on staging form. What is the code for CS extension?



# **Pop Quiz**

- Patient is diagnosed with poorly differentiated urothelial carcinoma with focal extension into the fat surrounding the ureteral orifice. What is the code for CS extension?
  - Code 40: Periureteral fat/tissue
  - Code 6o: Ureter



# BLADDER CANCER TREATMENT AND HOW TO CODE IT

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#### Surgery

FORDS Appendix B Page 280

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# Surgical Procedure of Primary Site: Bladder

- Code oo: None
  - Record 'random bladder biopsies' as no surgery
- Code 10: Local tumor destruction, NOS
  - Code 11: Photodynamic therapy (PDT)
  - Code 12: Electrocautery; fulguration
  - Code 13: Cryosurgery
  - Code 14: Laser



# Surgical Procedure of Primary Site: Bladder

- Code 10: Local tumor destruction, NOS
  - Code 15: Intravesical therapy
    - Record instillation of chemotherapy into the bladder in surgical procedure of primary site and the chemotherapy data items
  - Code 16: Bacillus Calmette-Guerin (BCG) or other immunotherapy
    - Record instillation of BCG or other immunotherapy into the bladder in surgical procedure of primary site and immunotherapy data items

Codes 10-16: no specimen sent to pathology



# Surgical Procedure of Primary Site: Bladder

- ◆ Code 20: Local tumor excision, NOS
  - Code 26: Polypectomy
  - Code 27: Excisional biopsy
    - Includes TURB or TURBT

Specimen sent to path from events 20-27



# Surgical Procedure of Primary Site: Bladder

#### Combination of 20 or 26-27 WITH

- Code 21: Photodynamic therapy (PDT)
- Code 22: Electrocautery
- Record TURB and fulguration using this code
- Code 23: Cryosurgery
- Code 24: Laser Ablation
- Code 25: Laser excision

Specimen sent to path from events 20-27



# Surgical Procedure of Primary Site: Bladder

- Code 30: Partial cystectomy
  - · Record segmental cystectomy using this code
- Code 50: Simple/total/complete cystectomy



# Surgical Procedure of Primary Site: Bladder

- Code 6o: Radical cystectomy (male only)
  - Includes removal of bladder, prostate, seminal vesicles, lower ureters
    - Record removal of lymph nodes in Scope of Regional Lymph Node Surgery Data Item
  - Code 61: Radical cystectomy PLUS ileal conduit
  - Code 62: Radical cystectomy PLUS continent reservoir or pouch, NOS

# Surgical Procedure of Primary Site: Bladder

- Code 63: Radical cystectomy PLUS abdominal pouch (cutaneous)
  - · Indiana pouch; Mainz pouch
- Code 64: Radical cystectomy PLUS in situ pouch (orthotopic)
  - Studer neobladder; Kock neobladder



# Surgical Procedure of Primary Site: Bladder

- ◆ Code 70: Pelvic exenteration, NOS
  - Code 71: Radical cystectomy (female only); anterior exenteration
  - Code 72: Posterior exenteration
  - Code 73: Total exenteration
    - Record removal of pelvic lymph nodes in Scope of Regional Lymph Node Surgery data item
- Code 74: Extended exenteration



# Surgical Procedure of Primary Site: Bladder

- Code 8o: Cystectomy, NOS
- Code 90: Surgery, NOS
- Code 99: Unknown



# **Pop Quiz**

 A bladder cancer patient was treated with TURB and BCG as 1<sup>st</sup> course treatment. What is the code for the data item, surgical procedure of primary site? Is the treatment coded in the immunotherapy data item?



## **Radiation**

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# Radiation Therapy for Bladder Cancer

- Regional treatment modality
  - External beam (EBRT)
    - Codes 20-32 (based on specific modality of EBRT)
    - Treatment option for Stage IV bladder cancer
    - Radiosensitizing chemotherapy
      - Cisplatin alone or in combination with 5-fu
      - ullet Mitomycin-C in combination with 5-fu
  - Interstitial implantation of radioisotopes
    - Code 50: Brachytherapy, NOS
    - Treatment option for Stage I bladder cancer



# Radiation Therapy for Bladder Cancer

- Determine if one modality is regional and one is boost when bladder cancer patient receives both EBRT and interstitial implant as 1<sup>st</sup> course treatment
  - Interstitial implantation of radioisotopes before or after EBRT for stage II bladder cancer
- EBRT with interstitial implantation of radioisotopes for stage III bladder cancer
- Record the dominant modality if both are regional treatment



## Chemotherapy

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## **Intravesical Chemotherapy**

- Urinary catheter is used to place anticancer drugs directly into the bladder
- Medications reach cancer cells near the bladder lining
  - Typically used for Ta or T1 tumors
  - Mitomycin-C and thiotepa are drugs used most often for this procedure
- Often administered immediately after TURB, but in some cases may be administered 3-4weeks after TURB



# Chemotherapy

- Code 02: Single-agent chemotherapy
  - Intravesical mitomycin-C OR intravesical thiotepa
  - Record as chemotherapy and surgical procedure of primary site
  - Systemic cisplatin



## Chemotherapy

- Code o3: Multi-agent chemotherapy
  - Systemic
    - GemCIS
      - Gemcitabine and cisplatin
  - M-VAC
    - Cisplatin, methatrexate, vinplastine, doxorubicin
  - MC\
    - $\hbox{\small \bullet \ Cisplatin, vinplastine, methotrexate} \\$



# Treatment Options with Adjuvant Chemotherapy

- Stage o and I
  - TURB with fulguration followed by intravesical chemotherapy
- Stage II and III
  - Neoadjuvant platinum-based combination chemotherapy followed by radical cystectomy
  - · EBRT with concurrent chemotherapy
- Stage IV
  - Chemotherapy as an adjunct to local treatment



## **Immunotherapy**

- Intravesical BCG or other immunotherapy (e.g., interferon alpha or gamma)
  - Often follows TURB with fulguration
  - Standard treatment option for stages o and I bladder cancer
  - Code in both immunotherapy data item (code o1) and surgical procedure of primary site data item



# Thank you for participating in today's webinar!

- The next webinar is scheduled for 11/6/08, and the topic is 'Coding Pitfalls'.
  - If you have something you'd like included, please forward to
- Forward questions from today's webinar to us. Per request of CoC, we will forward questions to them.
- Contact us at
  - Shannon Vann svann@naaccr.org; 217-698-0800 X9
  - Jim Hofferkamp jhofferkamp@naaccr.org; 217-698-0800 X5\_

