The Hernia Center:

What does it mean and what does it do for our patients and our region?

Chris Schneider, MD, FACS
General, Acute Care, Minimally Invasive and Robotic Surgery
Co-Director – Kettering Hernia Center at Soin Hospital
Goals

• Create a better understanding of the term “Hernia Center”
  • What it means and why it is important
  • What is “complex” and what is “straight forward” and why that is important
  • Recognizing the importance of clinical pathways for complex hernia

• Illustrate the benefits of a “Hernia” quaternary referral center
  • Patients, Network, and involved providers

• Define how the Hernia Center model addresses changes in care and reimbursement paradigms

• Generate a model for other disease processes
Defining the Problem

- >500,000 hernia repairs yearly in the US alone
- 15-55% occurrence after primary laparotomy AND laparoscopy AND robotic surgery
- Complications (recurrence, other injuries, mesh infections, other infections) related to hernia repair surgery account for >15 Billion dollars per year of healthcare cost
  - not including lost wages and quality of life
  - only partially including the definitive repair
Defining the Problem

- Recurrent Hernia repairs have higher rates of failure with each recurrence
  - Singhal, et. Al. Ventral Hernia Repair … JSLS. 2012
- QOL and SF-36 satisfaction scores decrease with each subsequent repair
- Cost from complications skyrockets
- Sir Cecil Wakely - “A Surgeon can do more for the community by operating on hernia cases and seeing that his recurrence rate is low than he can by operating on cases of malignant disease”
Defining the Problem

• Why are these statistics important?
  • Is it just about recurrence?
  • Is it just about morbidity?
  • Can we sustain repeated failures with hernia repair?
Non-Sustainable Economically

- Ventral and Incisional Hernia: The Cost of Comorbidities and Complications

  - Surg Endosc 2016
  - University of Kentucky
  - $18,000 for hernia repair
  - Increases to >$80,000 for complications requiring hospitalization, continues to increase with each procedure required - WITHIN THE FIRST YEAR
Non-Sustainable Economically

- Profit is gone and operating at a loss when:
  - LOS > 5 days
  - Placement of Biologic Mesh
  - Re-operation is necessary (both complications as well as repeat hernia repair)
  - Re-admission

Rosen – JACS 2013
Bridging The Gap

Healthcare 2015 Fee For Service

Healthcare 2017 Fee For Value
Triple Aim

- Improve Quality
  - Clinical Outcomes
  - Preventive Screenings
  - Health Status
  - Member Satisfaction

- Enhance Member Experience
  - Access to PCPs & Specialists
  - After hours care
  - Call Center Triage
  - Electronic Communication

- Reduce Cost
  - Aligned Financial Incentives
  - Shared Savings with Quality Gates
  - Medical, Prescription Drug and Behavioral Health in scope
  - Medical Home
Where Does the idea of a “Hernia Center” fit in?
Where does a "Hernia Center" come in?

• Centralization of the most complex cases
  • With goal to reduce complications, hospital stay, costs (including recurrences) and improve patient satisfaction and outcomes
• Distribution of up to date and pertinent information regarding less complex hernia repair (and the complex as well)
• Creates local database for patient and outcome tracking
• Permits disease specific quality tracking
• Reduce cost of care for disease and globally
Definition of a Hernia Center

• 2 Parts -
  • 1) “Access Point” for all “non complex” hernia care throughout the region
  • 2) Complex abdominal wall reconstruction center (center of excellence)

• “Hub and Spokes” model
Hernia Surgeons – Access Point

- At all hospitals within the network and in the region
- Allows for local care at local hospitals with surgeons who:
  - See new patient consults within 1 week
  - Are members of the Americas Hernia Society
  - Have a dedicated interest in hernia repair
  - Complete yearly CME for hernia specifically
  - Participate in Data Collection for local and national databases
  - Follow the hernia grading guidelines in order to steer the more complex hernia cases to the appropriate setting
  - Agree to participate in Quality monitoring and comply with evidence based care pathways.
Hernia Surgeons

- Dr Gary Anderson
- Dr Linda Bailey
- Dr Carey Brown
- Dr Greg Carpenter
- Dr David Deutsch
- Dr Michael Keller
- Dr Damian Lebamoff
- Dr Chris Madison
- Dr Warren Muth
- Dr Paul O’Brien
- Dr Brian Ondulick
- Dr Doug Paul
- Dr Girish Nagasetty
- Dr Carol Sawmiller
- Dr Chris Schneider
- Dr David Schumacher
Complexity Grading System

- European Guidelines
  - location based
- Ventral Hernia Working Group
  - Comorbidity based
- “Cancer stage” staging system
Hernia Center at Soin - Grading System

Inguinal Hernia:

- Grade 1 – first repair/primary repair
- Grade 2 – Recurrent hernia after anterior repair
- Grade 3 – Multiply recurrent after anterior repair, recurrent after posterior repair, recurrent with chronic inguinodynia

Ventral Hernia:

- Grade 1 – First time/primary repair
- Grade 2 – Recurrent after suture repair, onlay, or inlay mesh repair, first time parastomal or difficult location (subxiphoid, suprapubic)
- Grade 3 – Recurrent after intraperitoneal mesh repair, Complex anatomical location (lumbar, subcostal), recurrence of difficult locations (recurrent parastomal, subxiphoid, or suprapubic), mesh infection/extrusion, entreocutaneous fistula, loss of abdominal domain
Hernia Center – Grading and Keeping Care Local

- Grade 1 – all surgeons approach these hernias independently but enter data to database or provide information to program coordinator to enter

- Grade 2 – Collaborative approach between hernia center director and participating surgeon is strongly recommended to attempt to maintain consistent repair technique

- Grade 3 – managed at main hernia center hospital. Any surgeon may co-scrub these cases as desired.
Web-Based Questionnaire

1) Where on your body is your hernia located or do you know what “type” of hernia you have? (If known, please skip to question 3.)

2) Have you ever had a repair of a hernia within that location?
   - How many repairs? (If unknown, patient will be transferred to coordinator for scheduling options.)

3) Do you have a specific surgeon or hospital you would like to be seen at?

4) Where do you live?

5) Checklist—patient then goes to next surgeon in the rotation of the area of interest
Complex Abdominal Wall Reconstruction Center
Complex Abdominal Wall Reconstruction Center

- Complex abdominal wall repair program at Soin
  - Open Repair AND robotic options (including complex)
  - Quaternary referral center
- Patient centered, multi-specialty approach to hernia repair
- American Hernia Society Quality Collaborative (AHSQC national database)
- Center of Excellence Dedication (Pending completion)
- Chris Schneider, MD and Brian Ondulick, DO - Co Directors
Complex Abdominal Wall Reconstruction Center

- Only Existing Location in Dayton
  - Only prospective “Center of Excellence” in region
  - No need to leave the region/city for these repairs
    - (Previously had to go to Columbus or Cleveland)
  - Members of National/International Research collaborative
  - Offers Robotics and complex reconstructions
Complex Abdominal Wall Reconstruction Center

- Multi-disciplinary
- Anesthesia - TAPP blocks, epidurals, pain mgmt
- Cardiology, IM, Pulmonary Medicine - patient optimization pre-op, smoking cessation, diabetes control
- Nutrition, PT, OT - both pre and post op
  - Carbohydrate loading, post op mobilization
Complex Abdominal Wall Reconstruction Center

- **Care Coordinator** (Lauren Sweet) and **MA’s** (Ami Robinson, Jen Ahrens) - assure protocols followed, maintain point of contact with patients [shown to improve outcomes and satisfaction]

  - Ramshaw et. al - 2015
Complex Abdominal Wall Reconstruction Center

- Complex tissue reconstructions
  - Even if the word “hernia” doesn’t come up, if the abdominal wall, groin, flank, etc. looks “bad”, we take care of it

- Flank, stomal, hiatal, paraesophageal, diaphragmatic, incisional, ventral, fistulas of the abdominal wall, chronic infections,

- Staged Repairs - when necessary
Epigastric Hernia
Umbilical Hernia
Incisional Hernia
Spiegel Hernia
Inguinal Hernia
Femoral Hernia

Inguinal hernia occurs when a portion of the small intestine enters the inguinal canal.

Copyright UKES 2014
Pre-operative Preparation

• 1) 1 month of smoking cessation - blood testing
• 2) Weight loss to BMI <40
• 3) Diabetes Control to A1C < 8
• 4) 1 week Mupirocin to mucous membranes
• 5) 1 week Hibiclens showers
• 6) 48 hours of carbohydrate loading
• 7) 48 hours of acetaminophen loading
• 8) Pre incisional Transversus Abdominus Plane (TAP) blocks

Cobb - JACS 2015
Techniques for Repair
ABDOMINAL WALL MUSCLES
RECTUS SHEATH

EO External oblique
IO Internal oblique
TA Transversus abdominis
TF Transversalis fascia
First Questions with Complex Repairs
Basic Questions with Complex Hernia Repair

1st: What are the patient goals?
   - i.e. do you even need to do the repair?

2nd: Does the patient desire a “functional abdominal wall”

3rd: What is a “functional abdominal wall”

4th: Can you get the midline closed
   - And does this matter even?

5th: How do I get the midline closed when it isn’t easy
   - And is the payoff/reward worth the effort/risk

6th: Is there anything I can do before the operation?
Tenets of Repair
Overall Tenets of Repair

• Achieve the goals pre-operatively decided with the patient

• Low Recurrence rate

• Cost Efficient?

• Provides Quality of Life
Repair Options and Techniques

The “Open” repair …
Suture Repair

- Vest over pants
- Mayo Duplication
- “Simple” Suture repair
- “Smead-Jones”
Suture Repair

• Why to do it (technically there ARE reasons)
  • ??????
  • Mission field
  • During another procedure…
  • Small defects (<2 cm?, <3 cm?)

• Why not to do it
  • >50% recurrence
  • Availability of mesh

Cochrane Database Syst Rev. 2008 Jul 16;(3)
Hernias > 10 cm$^2$

- 10 yr cumulative recurrence
- Suture 67%
- Mesh 17%  $(p=0.003)$

- So if it is first repair and bigger than 3x3 cm it needs mesh
The “More Complex” hernias
Goal: Abdominal closure WITH “physiologic” tension

The biology of hernias and the abdominal wall

Michael G. Franz

- Too much tension and the wall will pull, creating ischemia and recurrence
- Too little tension you get poor collagen deposition and loss of strength
When compared to bridging, core muscle hypertrophy occurs when midline recreated both with components separation, TAR, and primary closure ¹

Closing fascia and returning muscles to midline recreates morphometric body characteristics and restores fascial area ²


Midline Closure - conclusion

• Closing fascia in the midline should be the goal for all ventral hernias in which a “functional abdominal wall” is desired.

• Tension on the midline wound must be appropriate, too loose and too tight are both negative.

• Quality of life is at least “as good” but likely “better” when you get the fascia closed without bridging.

• Now how do you get there…
Complex ventral reconstruction

When it just won’t come together…
Loss of Abdominal Domain

Even with advanced reconstruction, it doesn’t appear we will be able to get these closed.
Pre-operative management

- Loss of domain
  - Cannot fit everything back inside due to complexity/chronicity of disease
  - > 1/3 of the abdominal contents outside of the abdominal fascia
  - Cannot just “shove” it all back in
  - Must be cautious of pre-operative conditioning
    - COPD – worsened by pressure on the diaphragm when bowel returned to abdomen
    - Weak from immobility
    - Post operative compartment syndrome – monitor peak airway pressures at closing
Progressive Pre-operative Pneumoperitoneum
Progressive Pre-operative Pneumoperitoneum

- Exactly what it says it is. Blow air into the abdomen before definitive surgery
- Staged approach
  - Laparoscopy with insertion of Peritoneal Dialysis catheter
  - Placement of IVC filter (IVC compression leads to significant risk for DVT/PE)
  - Daily insufflation with medical grade air until intolerable
  - 7-10 days, then operate, remove catheter, hernia repair
What it does:

1) Increases the size of the fascia via persistent “stretching”
2) Allows for pulmonary conditioning
3) Decision on whether to proceed to repair
4) Stretches hernia sac and some of the adhesions
Techniques for Repair

The Gold Standard
Rives Stoppa Wantz Repair
Components Separation
and Transversus Abdominis Release (TAR)
Anterior Components Separation

- Utilizes the mobility provided by separation of external oblique fibers at their medial most point.
  - 5-8 cm medial mobility per side separated

- Can also add incision of posterior rectus sheath to gain length
  - Adds 1.5-2 cm of medial mobility per side separated
  - Total of up to ~20 cm advancement possible
Anterior Components Separation
Anterior Components
Separation

Show pictures
Anterior Components Separation

- Positives
  - Closure of the midline fascia (functional abdominal wall)
  - Lower Recurrence Rate? (great question still unanswered)

- Negatives
  - Need to use mesh with a tissue barrier
  - Lengthy procedure
  - Definite learning curve to procedure
  - Skin flap necrosis and seromas
Memphis Modification to technique

- When anterior components has been released and there is still significant distance to cover

- Release of the posterior sheath

- Rather than release the posterior sheath over 1.5-2 cm to rotate this, the internal oblique contribution to the anterior sheath is released

- Anterior rectus fascia is then sewn to posterior rectus fascia

- Mesh or no mesh is used

- Additional 5-6 cm per side (total can cover about 20-30 cm at level of the umbilicus)

“Open Book” modification

- Useful if a significant diastasis at cephalad and caudal portions of the hernia (Memphis Modification does not address this area)

- After anterior release, rather than separate anterior and posterior sheath at midline, release of the anterior fascia laterally

- Allows rotation of entire anterior sheath of rectus medially adding 4-6 cm per side entire length of the fascia

- Does release the anterior sheath of the fascia (“strength layer of the abdominal wall”)

Another myofascial advancement flap

Utilizes separation of the internal oblique fascia at the most medial point

Allows 5-8 cm per side advanced

Retro-rectus placement of mesh.
Posterior Components Separation Technique
• Similar to Posterior components but sacrifices transversus abdominis muscle rather than sacrificing perforating nerves

• Plane is 1 muscle layer deeper

• All other information is the same.
Transversus Abdominis Release

- **Pro’s:**
  - No damage to the perforating nerves to the rectus muscle

- **Con’s:**
  - Less mobilization than anterior components separation (maybe?)
  - Division of the transversus abdominis with unknown result
Post Operative Management
Post Operative Care

- ERAS protocols for Hernia Surgery
- TAPP Blocks (post op care starts pre-op)
- Early mobilization - Aggressive PT/OT/RT
- Multi-modality pain control - including acetaminophen, gabapentin, valium
- Early diet advancement
- Multi physician and caregiver interactions
- Expectation setting (bring clothes for POD 2, etc)
Hernia Complexity and Care Access

How do we incorporate all of the above?
Bridging The Gap

Healthcare 2015 Fee For Service

Healthcare 2017 Fee For Value
Triple Aim

• Improve Quality
  o Clinical Outcomes
  o Preventive Screenings
  o Health Status
  o Member Satisfaction

• Enhance Member Experience
  o Access to PCPs & Specialists
  o After hours care
  o Call Center Triage
  o Electronic Communication

• Reduce Cost
  o Aligned Financial Incentives
  o Shared Savings with Quality Gates
  o Medical, Prescription Drug and Behavioral Health in scope
  o Medical Home
Complex Hernia Care

• Idea is not to drive “volume” to any one location, but to have care for complex issues coordinated and algorithm based (evidence based) by individuals practicing in high volume

• Pancreas?

• Esophagus?

• Complex Hernia?
But Complex Hernia?

The impact of developing a comprehensive hernia center on the referral patterns and complexity of hernia care

S. Raigani · G. S. De Silva · C. N. Criss · Y. W. Novitsky · M. J. Rosen

Results Eighteen thousand forty-seven patients met the inclusion criteria. The hernia reoperation rate was 9%, and median time to reoperation was 1.4 years (mean = 1.8). After adjusting for clinical factors, surgeons performing an average of ≥36 repairs/year had significantly lower reoperation rates (HR = 0.59, 95% confidence interval (CI) = 0.48–0.72), operative time (incidence rate ratio (IRR) = 0.67, 95% CI = 0.64–0.71), and downstream charges (IRR = 0.63, 95% CI = 0.57–0.69). Facility characteristics
Does it work though?

- 172 Cases referred through hernia center so far (9 months)
- 41 highest grade/complexity
- 2 complications requiring surgical revision
Does it work though?

- **Benefits of Multimodal Enhanced Recovery Pathway in Patients Undergoing Open Ventral Hernia Repair** – JACS 2016, Novitski Et al
  - 100 pts – 12 month period (this is high volume)
  - ALOS 4.0 days (3.45)
  - 90 day re-admission 4% (4%)
Does it work though?

• Yes!
Next Steps

- Increase access through marketing
- Improve care through system wide algorithm and outcomes tracking
- Improve care via SF-36 and patient satisfaction surveys
- Stay ahead of the game on research and academia (publication, fellowships, memberships)
- Assure care remains high quality
Goals

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  • What is “complex” and what is “straight forward” and why that is important
  • Recognizing the importance of clinical pathways for complex hernia

• Illustrate the benefits of a “Hernia” quaternary referral center
  • Patients, Network, and involved providers

• Define how the Hernia Center model addresses changes in care and reimbursement paradigms

• Generate a model for other disease processes
The End?
“Hernia” Center as a Disease Specific Model

- Can be used to stratify and treat all complex medical and surgical processes
- Identify the problem and levels of complexity
- Need to have “buy in” from treating physicians
- Identify experts
- Identify providers
- Centralize most complex cases only
- Manage less complex locally
“Hernia Center” as a disease specific model

- Can cross multiple specialties
- Leadership from each when necessary
- Coordinator – non physician, but experienced provider
- Must be completely transparent
- Needs to have a benefit to all for buy in…
“Hernia Center” as a disease specific model

- Quality tracking and following is mandatory – probably the most important part

- Participants falling outside benchmarks should have repercussion (temporary or permanent)

- Flexibility for unforseen issues

- Patient outcomes must be transparent and maintained in database as well.
Lessons Learned
Lessons Learned

• Patience – a new model, not “30 plus years” old

• Flexibility – need for neurosurgery and cardiology services at our facility

• Transparency – full documenting regarding incoming cases
| Date       | M/F | Age | Zip Code | City       | Refer / Dr / Self | Hear about HCAS | Get Ahead of Us | PCP    | Type of Hernia  | Hosp / Hosp. | Dr. Pref. | Ref to | Surg Y/N |
|------------|-----|-----|----------|------------|------------------|-----------------|-----------------|-------|---------------|--------------|-----------|--------|--------|---------|
| 9/1/2016   | F   | 85  | 45417    | Dayton     | Dr. Pulaski     | OB/GYN          | Fax N/A         | Y     | Umbilical     | Y            | Kettering Y| Dr. Schneider Y | Y |
| 9/6/2016   | M   | 56  | 45385    | Xenia      | Dr. Balonier    | Transition Clinic | Dr. Balonier    | N     | Inguinal      | Y            | Sohn Y    | Dr. Schneider Y | Y |
| 9/7/2016   | M   | 36  | 45458    | Centerville| Dr. O'Connell  | PCP             | Drop-Down Dr. O'Connell | N     | Inguinal      | Y            | Kettering Y| Dr. Paul | N |
| 9/9/2016   | M   | 30  | 4542    | Miamisburg | Self            | Dr. Schneider   | Doc Button     | N/A   | Inguinal      | Y            | Kettering Y| Dr. Schneider Y | Y |
| 9/12/2016  | M   | 58  | 45345    | New Lebanon| Self            | Friend          | Phone Brummer  | Y     | Inguinal      | Y            | Sohn N    | Dr. Ondulick Y | Y |
| 9/12/2016  | M   | 61  | 45177    | Wilmington | Dr. O'Connell  | PCP             | Drop-Down Dr. O'Connell | Y     | Umbilical     | Y            | Sohn Y    | Dr. Schneider Y | Y |
| 9/19/2016  | M   | 56  | 45440    | Kettering  | Dr. Shutte      | PCP             | Drop-Down Dr. Shutte | Y     | Inguinal      | Y            | Kettering Y| Dr. Schneider Y | Y |
| 9/19/2016  | M   | 57  | 45341    | Medway     | Dr. Bolden      | PCP             | Fax N/A         | Y     | Inguinal      | Y            | Kettering Y| Dr. Schneider Y | Y |
| 9/13/2016  | F   | 84  | 45335    | Xenia      | Self            | Internet Phone  | Dr. Gibson     | Y     | Inguinal/Femoral | Y            | Sohn N    | Dr. Schneider Y | Y |
| 9/16/2016  | M   | 40  | 45404    | Dayton     | Dr. Cortez      | ER Phone/Fax    | Y               | Y     | Abdominal pain | Y            | Sohn Y    | Dr. Schneider Y | Y |
| 9/16/2016  | F   | 33  | 45334    | Fairborn   | Dr. Jones       | PCP             | Phone Dr. Jones | Y     | Gallbladder   | Y            | Sohn Y    | Dr. Schneider Y | Y |
| 9/20/2016  | F   | 40  | 45503    | Springfield| Self            | Friend          | Doc Button     | N     | Inguinal/Umbilical | Y            | Sohn N    | Dr. Schneider Y | Y |
| 9/20/2016  | F   | 48  | 45432    | Dayton     | Dr. Sawmiller   | Surgeon         | Drop-Down N/A   | Y     | Ventralfacial | Y            | Sohn Y    | Dr. Ondulick Y | Y |
| 9/20/2016  | F   | 56  | 45459    | Dayton     | Dr. Sawmiller   | Surgeon         | Drop-Down N/A   | Y     | Inguinal      | Y            | Sohn Y    | Dr. Schneider Y | Y |
| 9/21/2016  | F   | 69  | 45431    | Beavercreek| Dr. Askew       | PCP             | Fax Dr. Askew   | Y     | Inguinal/Femoral | Y            | Sohn N    | Dr. Ondulick Y | Y |
| 9/21/2016  | F   | 58  | 45431    | Beavercreek| Dr. Sawmiller   | Surgeon         | Drop-Down N/A   | Y     | Umbilical     | Y            | Sohn Y    | Dr. Schneider Y | Y |
| 9/23/2016  | F   | 71  | 45417    | Dayton     | Dr. Clark       | PCP             | Drop-Down Dr. Clark | N     | Inguinal      | N            | Kettering Y| Dr. Anderson Y | Y |
| 9/23/2016  | M   | 61  | 45342    | Miamisburg  | P. Garland PA-C | PCP             | Drop-Down P. Garland PA-C | N     | Ventralfacial | Y            | Sohn N    | Dr. Ondulick Y | Y |
| 9/26/2016  | F   | 29  | 45420    | Dayton     | Self            | Internet Phone  | N               | Y     | Umbilical     | Y            | Kettering Y| Dr. Lebamott Y | Y |
| 9/26/2016  | F   | 66  | 45451    | Cincinnati  | Self            | Internet Phone  | Dr. Kris Huang  | Y     | Umbilical     | N            | Fort Home | Dr. Nagsett Y | Y |
| 9/26/2016  | F   | 57  | 45342    | Miamisburg  | Self            | Internet Phone  | Dr. Bonnie Bell | Y     | Umbilical     | N            | Sohn N    | Dr. Lebamott Y | Y |
| 9/26/2016  | F   | 32  | 45419    | Dayton     | Self            | Internet Phone  | Y               | Y     | Umbilical     | N            | Sohn Y    | Dr. Ondulick Y | Y |
| 9/28/2016  | F   | 31  | 45458    | Centerville| PCP             | PCP             | Y               | Y     | Umbilical     | N            | Sohn Y    | Dr. Schneider Y | Y |
| 9/28/2016  | F   | 53  | 45385    | Xenia      | PCP             | PCP             | Y               | Y     | Umbilical     | Y            | Sohn N    | Dr. Schneider Y | Y |
| 9/28/2016  | F   | 57  | 45417    | Dayton     | Dr. Sawmiller   | Surgeon         | Drop-Down N/A   | Y     | Ventralfacial | Y            | Sohn N    | Dr. Schneider Y | Y |
| 9/29/2016  | F   | 68  | 45385    | Xenia      | Dr. Deutsch     | PCP             | Fax Dr. Udom   | N     | Inguinal/Umbilical | Y            | Green Y   | Dr. Deutsch | Y |

Total: 26 patients

- F = Female
- M = Male
- Avg = Average
- Zip codes = Unique zip codes
- City = City
- Refer / Dr / Self = Reference / Doctor / Self
- Hear about HCAS = How you heard about HCAS
- Get Ahead of Us = Get Ahead of Us
- PCP = PCP
- Type of Hernia = Type of Hernia
- Hosp / Hosp. = Hospital / Hospital
- Dr. Pref. = Dr. Preference
- Ref to = Reference to
- Surg Y/N = Surgery Y/N

No calls the month
Lessons Learned

• Quality monitoring and outcomes must have teeth

• Patient satisfaction is #1

• Networking regionally and nationally need to be incorporated

• Monthly meetings with input from all providers encouraged until all are satisfied

• Marketing should be equal throughout the network regions

• Center of Excellence – if available – should be goal regardless of difficulty (will help with CMS quality drive)
“_____ Center” as a disease specific model

- How about vascular?
- Identify providers – CT, vascular, cariology
- Identify leadership – one person from each
- Identify complex vs simple – AAA, redo’s, LE bypass, endovascular
- Identify center to provide care for most complex cases – Kettering? Sycamore? What fits best
“_____ Center” as a disease specific model

- Identify those that would like to participate
  - decide within the group

- Identify requirements for care - ?seen within a week?

- Keep care local for those individuals but within protocols and algorithms

- Track Data – must enforce quality
“_____ Center” as a disease specific model

- Must have an outstanding coordinator and staff
  - Lot of data – empiric here
- Generate algorithm for patient placement/consults
- Be completely transparent about each new patient
- Market globally and regionally
“_____ Center” as a disease specific model

- Have EXCELLENT patient satisfaction and outcomes
- Have growth and a profitable model with buy in from physicians
- Expand ONLY when critical volume achieved
The End?

Yes, for real this time…

Questions?