Atlantic Health System

Comprehensive Care for Joint Replacement (CJR) Program

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Medical Director Orthopedic Service Line

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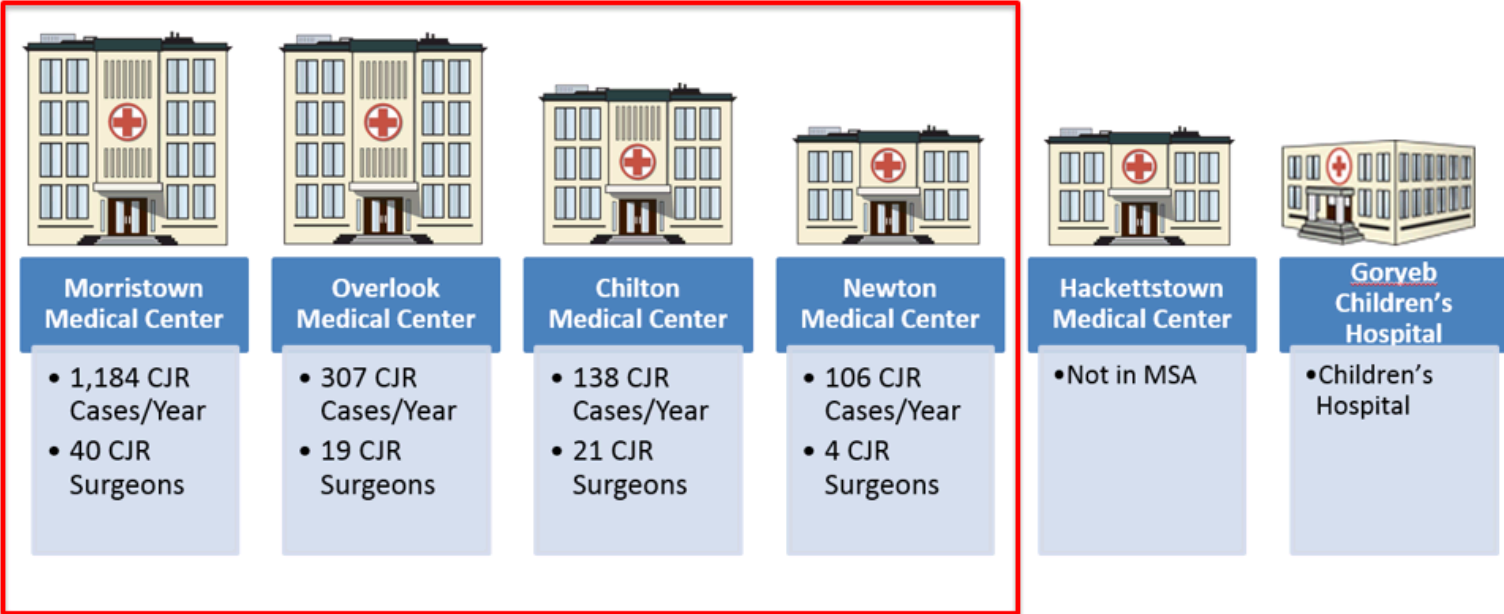System Central Nurse Navigator

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Atlantic Health System

Headquartered in Morristown, New Jersey
Not-for-profit 5 hospital system with 1,669 beds
Children's, Rehab, Home Care and Hospice
600+ community-based health care providers
1.9 Million primary population served
Part of Atlantic Accountable Care Organization

Atlantic Health System (AHS) Hospitals included in CJR

Morristown Medical Center	Overlook Medical Center	Chilton Medical Center	Newton Medical Center	Hackettstown Medical Center	Goryeb Children's Hospital
• 1,184 CJR Cases/Year • 40 CJR Surgeons	• 307 CJR Cases/Year • 19 CJR Surgeons	• 138 CJR Cases/Year • 21 CJR Surgeons	• 106 CJR Cases/Year • 4 CJR Surgeons	• Not in MSA	• Children's Hospital

Source: Atlantic Health System

AHS Orthopedic Volume at a Glance

1,700 CJR surgeries annually

4,000 Total joint surgeries annually
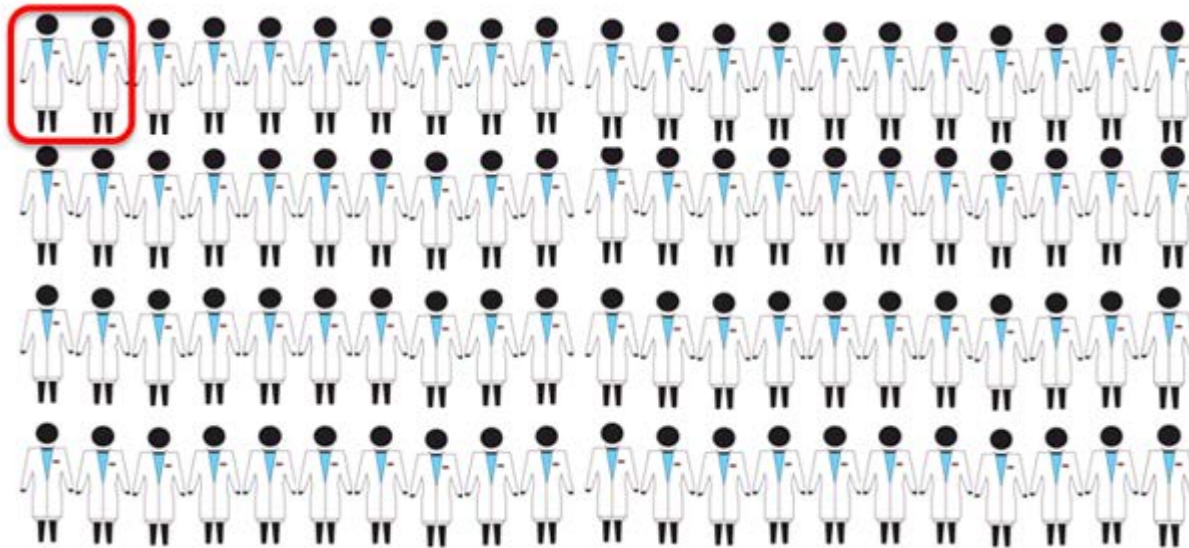(including single, bilateral, primary and revisions)

6,000 Inpatient orthopedic annually

12,000 Orthopedic surgeries annually
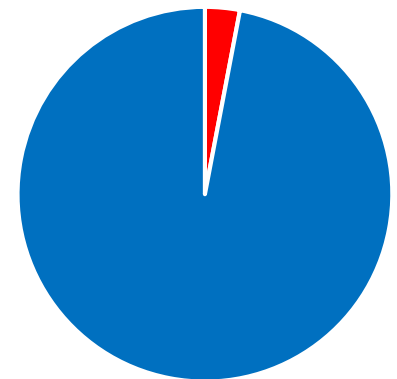(including in-patient and ambulatory surgeries)

Challenges with Physician Make Up

Only 2 of the 84 CJR surgeons completing fewer than 3% of the CJR cases are employed physicians, the remainder are independent physicians
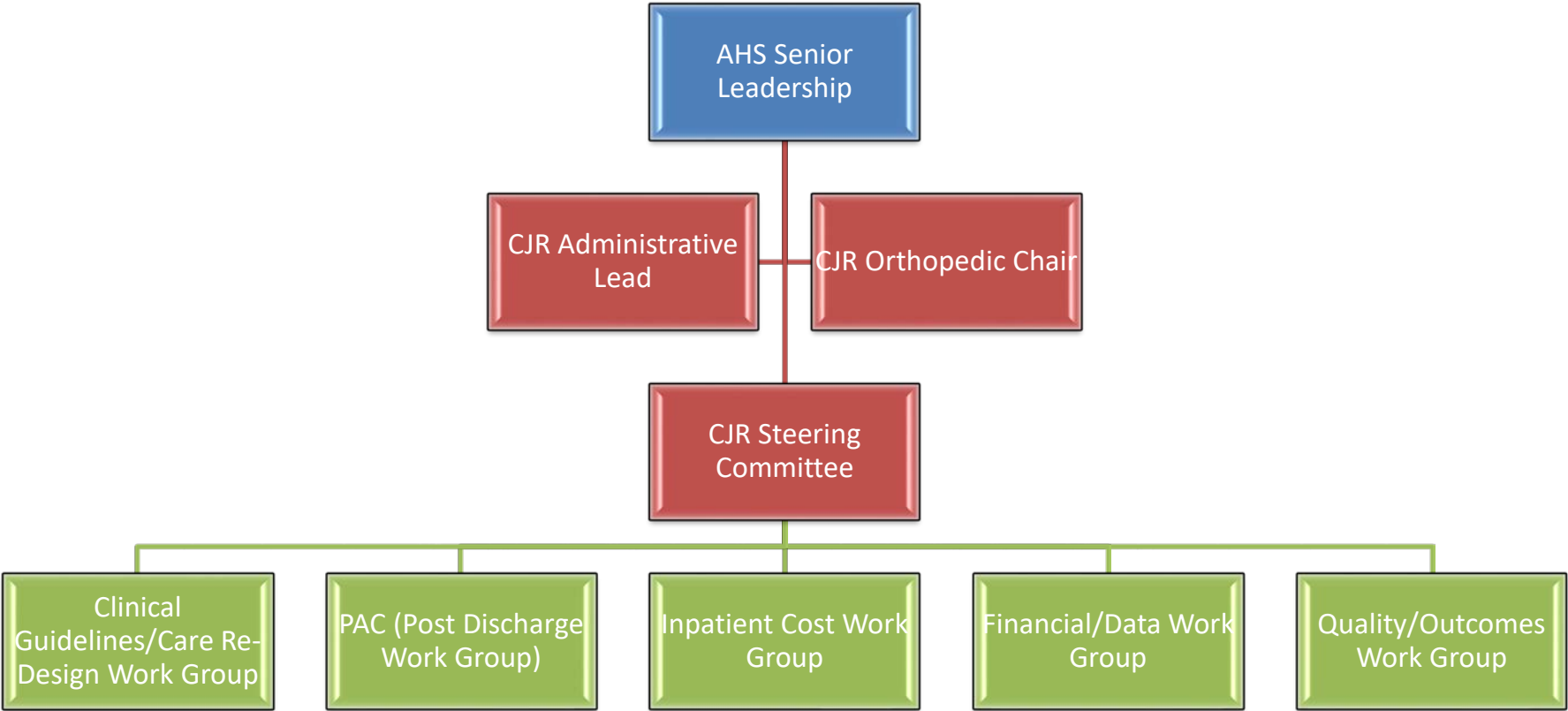

Annual CJR Cases

- Employed Physicians
- Independent Physicians

Established a Model Year 1 Steering Committee

AHS Senior Leadership

CJR Administrative Lead

CJR Orthopedic Chair

CJR Steering Committee

Clinical Guidelines/Care Re-Design Work Group

PAC (Post Discharge Work Group)

Inpatient Cost Work Group

Financial/Data Work Group

Quality/Outcomes Work Group

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Baseline Data Summary Key Recommendations

Learn from the leader and disseminate best practices

SNF/IRF Review

Physician engagement

Thorough Care Pathway Assessment

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Atlantic Health System CJR Model Year 1 Goals

Increase discharge disposition to home

Decrease LOS at post-acute care facility

(SNF or IRF)

Baseline Data Review:
Physician Performance Report

Physician Performance Baseline Period

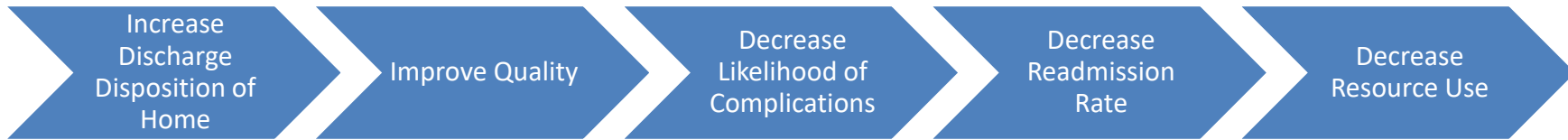| Surgeon	Episodes	Total Episode Paid	Avg Cost p/Episode	Readmit Rate	% SNF 1st PAC	% IRF 1st PAC	% HH 1st PAC	% Home 1st PAC
	811	$22,957,075	$28,307	7 %	41 %	36 %	19 %	4 %
	680	$16,537,492	$24,320	9 %	25 %	18 %	33 %	25 %
	173	$5,611,386	$32,436	13 %	72 %	16 %	10 %	2 %
	169	$4,685,809	$27,727	7 %	34 %	25 %	37 %	4 %
	143	$4,309,779	$30,138	8 %	80 %	17 %	3 %	0 %
	131	$3,421,531	$26,119	9 %	19 %	18 %	31 %	31 %
	114	$3,600,634	$31,585	11 %	48 %	24 %	19 %	9 %
	114	$3,295,983	$28,912	11 %	31 %	17 %	33 %	18 %
	108	$2,451,472	$22,699	11 %	8 %	5 %	79 %	6 %
	100	$3,072,486	$30,725	6 %	42 %	28 %	27 %	3 %
	95	$2,849,944	$29,999	9 %	82 %	3 %	0 %	7 %
	87	$2,629,588	$30,225	7 %	60 %	40 %	0 %	0 %
	84	$2,531,773	$30,140	2 %	63 %	30 %	6 %	0 %
	81	$2,566,631	$31,687	14 %	81 %	5 %	2 %	5 %
	54	$1,784,627	$33,049	15 %	35 %	28 %	31 %	6 %
	50	$1,754,000	$35,080	14 %	72 %	26 %	2 %	0 %
	49	$1,256,758	$25,648	14 %	29 %	24 %	45 %	2 %
	48	$1,210,549	$25,220	8 %	29 %	29 %	33 %	8 %
	48	$1,219,115	$25,398	0 %	21 %	23 %	42 %	15 %
	44	$1,768,320	$40,189	16 %	80 %	16 %	2 %	2 %

Model Year 1 Initiatives

Patient Focused and Quality Driven Standardization

- Standardization of Order Sets System-wide
- Standardization of Care Guidelines
- Standardization of Patient Education
- Development of CJR Preferred Provider List
- Implementation of Patient Risk Stratification

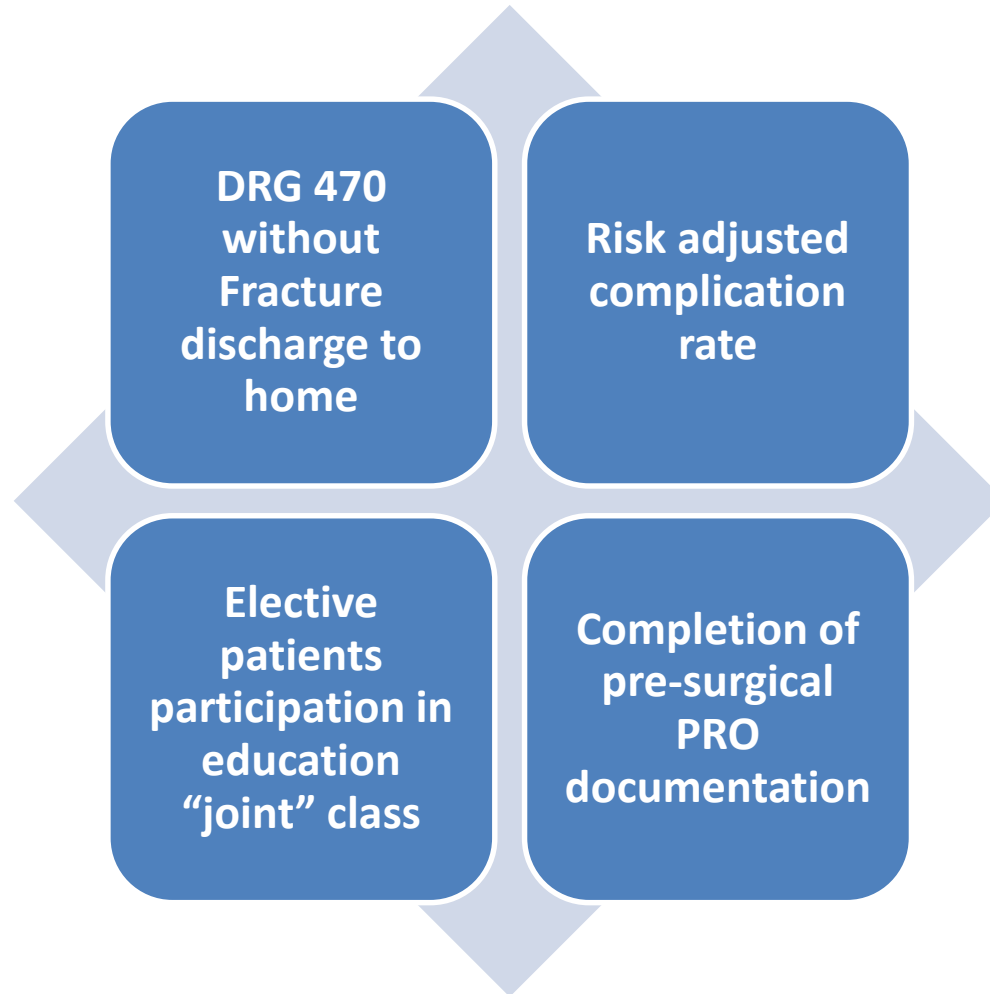# Why is Discharge Disposition to Home for Elective Patients Important?

Increase Discharge Disposition of Home → Improve Quality → Decrease Likelihood of Complications → Decrease Readmission Rate → Decrease Resource Use

CJR 90-day Readmission Rate for episode dates: 2012, 2013, 2014, 4/1/16-9/30/16

Row Labels	All Ellective Episodes (4067 episodes)			Elective Episodes with 2 or fewer "chronic conditions" (3391 episodes)		
	Total Readmission Rate	Discharge to Home Readmission Rate	Discharge to Facility Readmission Rate	Total Readmission Rate	Discharge to Home Readmission Rate	Discharge to Facility Readmission Rate
DRG 469 w/o fracture	15.7%	0.0%	16.0%	5.3%	0.0%	5.9%
DRG 470 w/o fracture	7.6%	4.2%	9.8%	5.2%	3.6%	6.5%
Grand Total	**7.7%**	**4.2%**	**12.1%**	**5.2%**	**3.6%**	**6.5%**

- Fewer complications
- Less cost

Year 1 Orthopedic Surgeon Gainsharing Metrics

DRG 470 without Fracture discharge to home

Risk adjusted complication rate

Elective patients participation in education "joint" class

Completion of pre-surgical PRO documentation

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CJR Episode Cost

Cost = Acute Care + 90-Day Post- Discharge (*including Readmissions)*

| Pre | Acute Care/Inpatient Physician Fees | Post- Acute Care IRF- SNF- Home Care | Post (Including Readmissions) |

Low Variation
Minimal cost savings opportunities

44.26% Inpatient Services
16.34% Professional Services
60.6% Total

High Variation
Significant cost savings opportunities

39.4% Total

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Key Objectives Developed for the Work Groups

Organizational chart:

- **AHS Senior Leadership**
  - **CJR Administrative Lead** — **CJR Orthopedic Chair**
  - **CJR Steering Committee**
    - **Clinical Guidelines/Care Re-Design Work Group**
    - **PAC (Post Discharge Work Group)**
    - **Inpatient Cost Work Group**
    - **Financial/Data Work Group**
    - **Quality/Outcomes Work Group**
    - **Navigator Work Group**
      - **System Central Navigator**
        - **MMC Site Navigator**
        - **OMC Site Navigator**
        - **CMC Site Navigator**
        - **NMC Site Navigator**

Risk Assessment and Prediction Tool (RAPT)

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RISK ASSESSMENT AND PREDICTION TOOL (RAPT)

To be completed by the patients undergoing elective Hip or Knee replacement surgery prior to discussion with your orthopedic surgeon or attending Pre-admission Clinic

Patient Name: _____ DOB: _____

Surgeon: _____

Insurance: _____ Date of Surgery: _____

	Check only 1 box for each question	Score
1. What is your age group?	☐ 50-65 years ☐ 66-75 years ☐ greater than 75 years	=2 =1 =0
2. Gender?	☐ Male ☐ Female	=2 =1
3. How far on average can you walk? (a block is 200 meters/600 feet)	☐ Two blocks or more (+/-rest) ☐ 1-2 blocks (+/-rest) ☐ Housebound (most of time)	=2 =1 =0
4. Which gait aid do you use? (more often than not)	☐ None ☐ Single-point cane ☐ Crutches/walker	=2 =1 =0
5. Do you use community supports? (home help, meals on wheels, Visiting nurse)	☐ None or one per week ☐ Two or more per week	=1 =0
6. Will you live with someone who can care for you after your operation?	☐ Yes ☐ No	=3 =0

Patient Signature: _____ Date: _____

AH8901832 (04/16)

Information developed from Australian Health Service Alliance Brochure

Measures Risk factors that can interfere with discharge to home

- Age group

- Gender

- How far on average can patient ambulate

- Gait aid used

- Community supports utilization (i.e. Home Help, Meals on Wheels)

- Caregiver after surgery

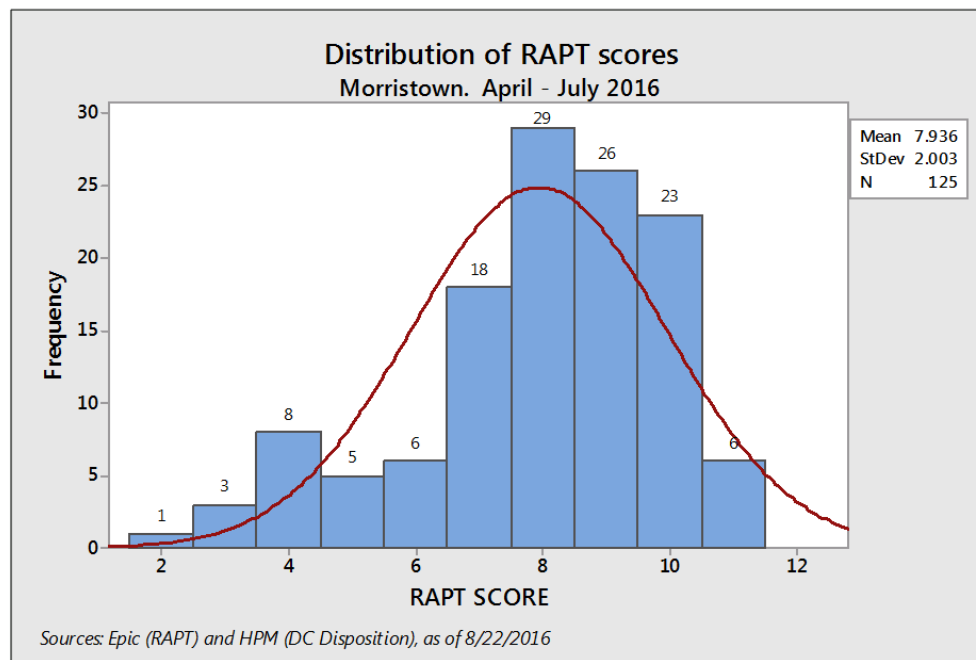# Initial Stratification of CJR Patients with RAPT Tool

Score <6	Score 6-9	Score >9
• Increased likelihood of discharge to PAC • High Risk tracked by Central Navigator	• Intervention to discharge directly home • High Risk tracked by Central Navigator	• Increased likelihood discharge directly home • Low Risk tracked by Site Navigator

Distribution of RAPT scores
Morristown. April - July 2016

Mean 7.936
StDev 2.003
N 125

Sources: Epic (RAPT) and HPM (DC Disposition), as of 8/22/2016

Average RAPT score = 7.9; median = 8.0
Range 2-11
23 (18.4%) with RAPT ≤ 6

Changes in High vs Low Risk Stratification

High Risk
- Tracked by Central Navigator
- RAPT Score <=6
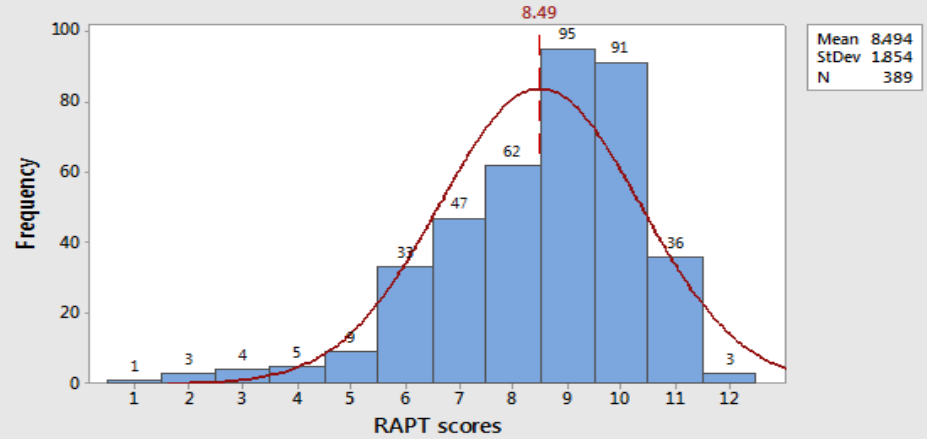- Patient Discharged to PAC

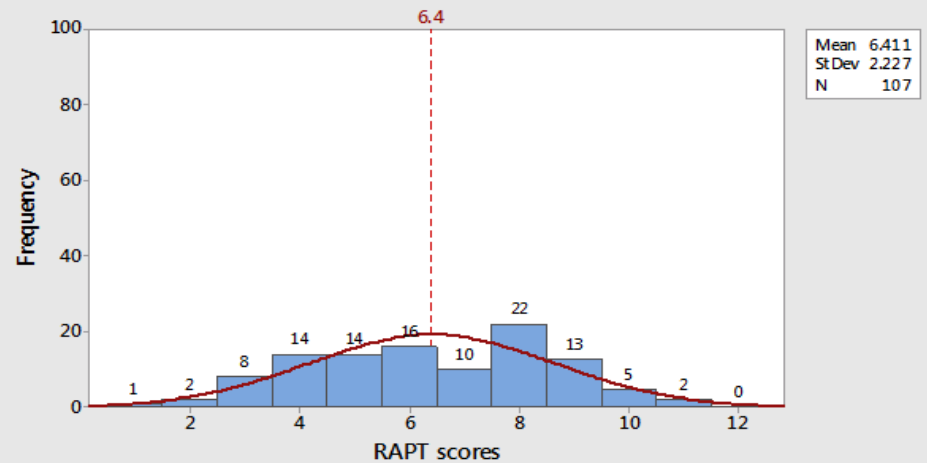## Medium Risk
- Tracked by Site Navigator
- RAPT Score 7-9

Low Risk
- Tracked by Site Navigator
- RAPT >9

Distribution of RAPT Scores of patients discharged directly home — MMC

Mean 8.494
StDev 1.854
N 389

Distribution of RAPT Scores of patients transferred to a facility — MMC

Mean 6.411
StDev 2.227
N 107

Care Navigation Work Group

Central Navigator (1)
- Follows High Risk Patients across health system
- Develops/Maintains relationships with Post Acute Network especially with LOS
- Tracks/Evaluates patient trends

Site Navigators (4)
- Follow Low Risk Patients at specific site
- Support Central Navigator
- Develops and provides educational material to patients

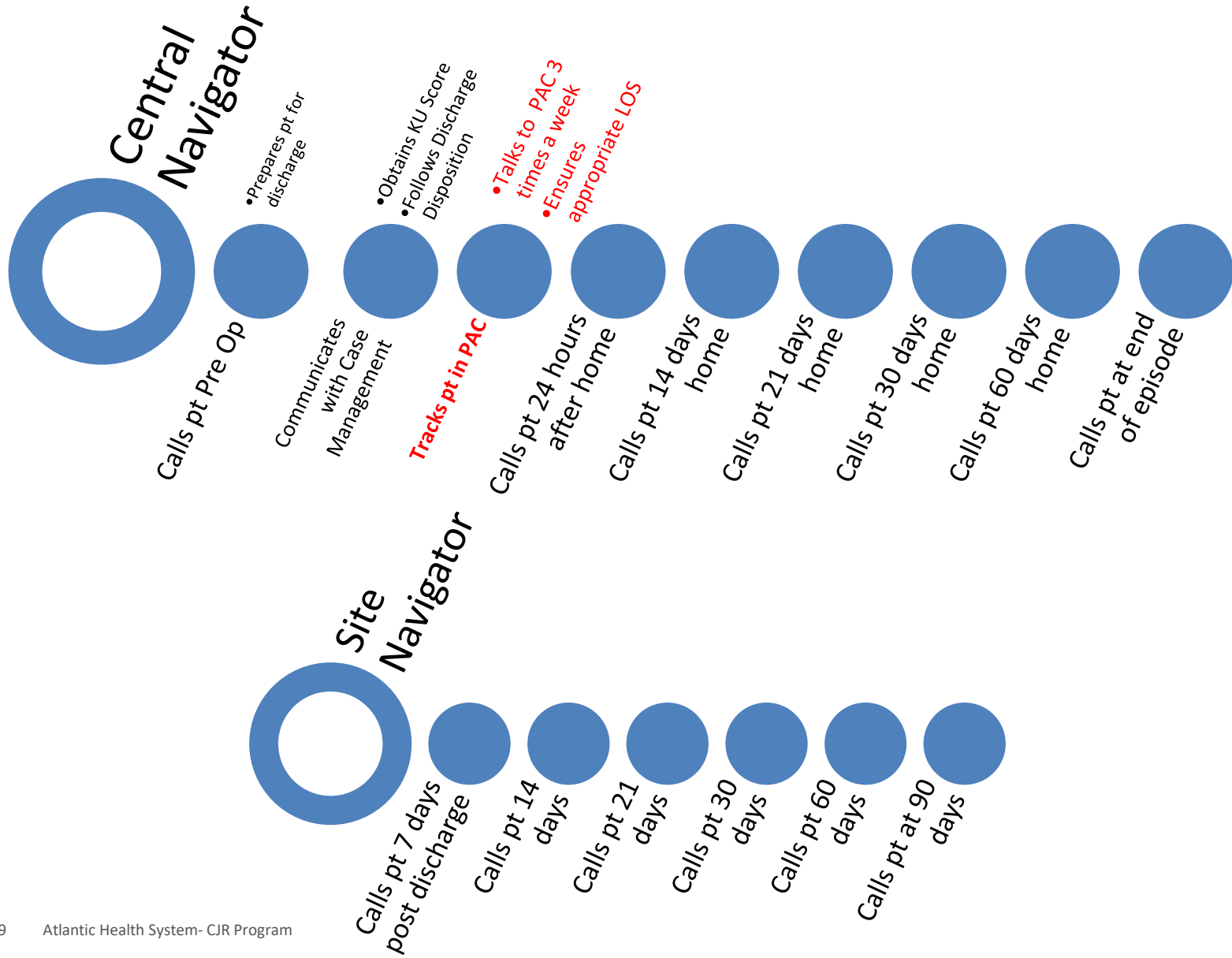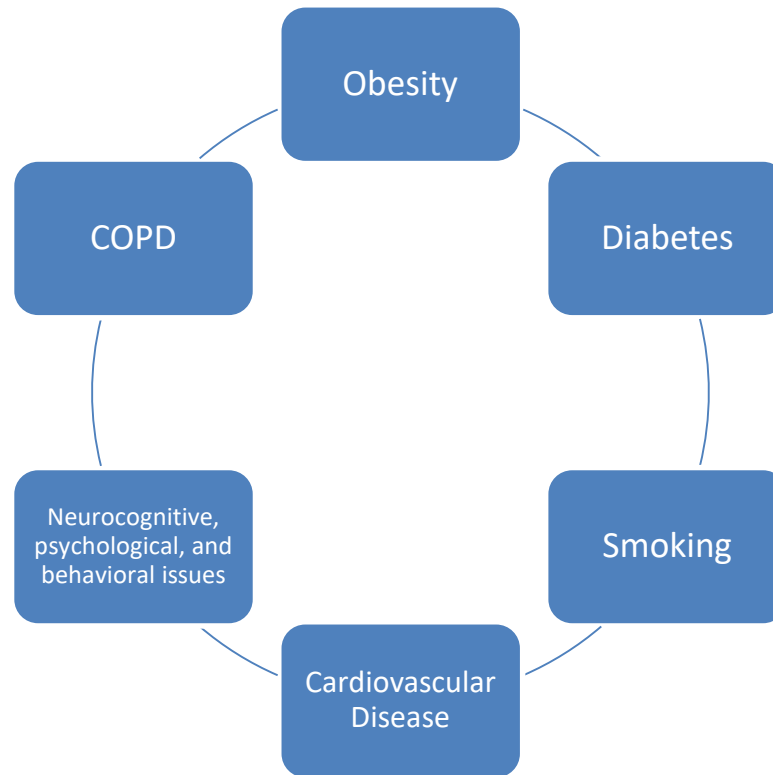| Score <=6	Score 7-9	Score >9
• Increased likelihood of discharge to PAC • High Risk tracked by Central Navigator	• Intervention to discharge directly home • Medium Risk tracked by Site Navigator	• Increased likelihood discharge directly home • Low Risk tracked by Site Navigator

Care Navigation Work Group

Central Navigator

- Calls pt Pre Op
- Communicates with Case Management
  - Prepares pt for discharge
  - Obtains KU Score
  - Follows Discharge Disposition
- **Tracks pt in PAC**
  - Talks to PAC 3 times a week
  - Ensures appropriate LOS
- Calls pt 24 hours after home
- Calls pt 14 days home
- Calls pt 21 days home
- Calls pt 30 days home
- Calls pt 60 days home
- Calls pt at end of episode

Site Navigator

- Calls pt 7 days post discharge
- Calls pt 14 days
- Calls pt 21 days
- Calls pt 30 days
- Calls pt 60 days
- Calls pt at 90 days

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RAPT Limitations

Does not account for Risk factors such as*:

Obesity

Diabetes

COPD

Smoking

Neurocognitive, psychological, and behavioral issues

Cardiovascular Disease

*Currently evaluating a tool for readmissions that will look at these risk factors

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Preferred PAC Providers for CJR

Criteria:

- ✓ In ACO High Performing Network

- ✓ Proximity to Medical Centers, balanced with geographic spread to cover patient origin

- ✓ Receives significant volume from AHS regional medical center

- ✓ AHS providers currently have strong presence and/or leadership roles

CJR Preferred vs Non Preferred Providers: Model Year 1-2: 470 No Fx LOS

Post Acute Providers	Length of Stay (LOS)
Preferred	10 Days
Non Preferred	**15 Days**

Length of Stay

- **Preferred** (33%)
- **Non Preffered** (67%)

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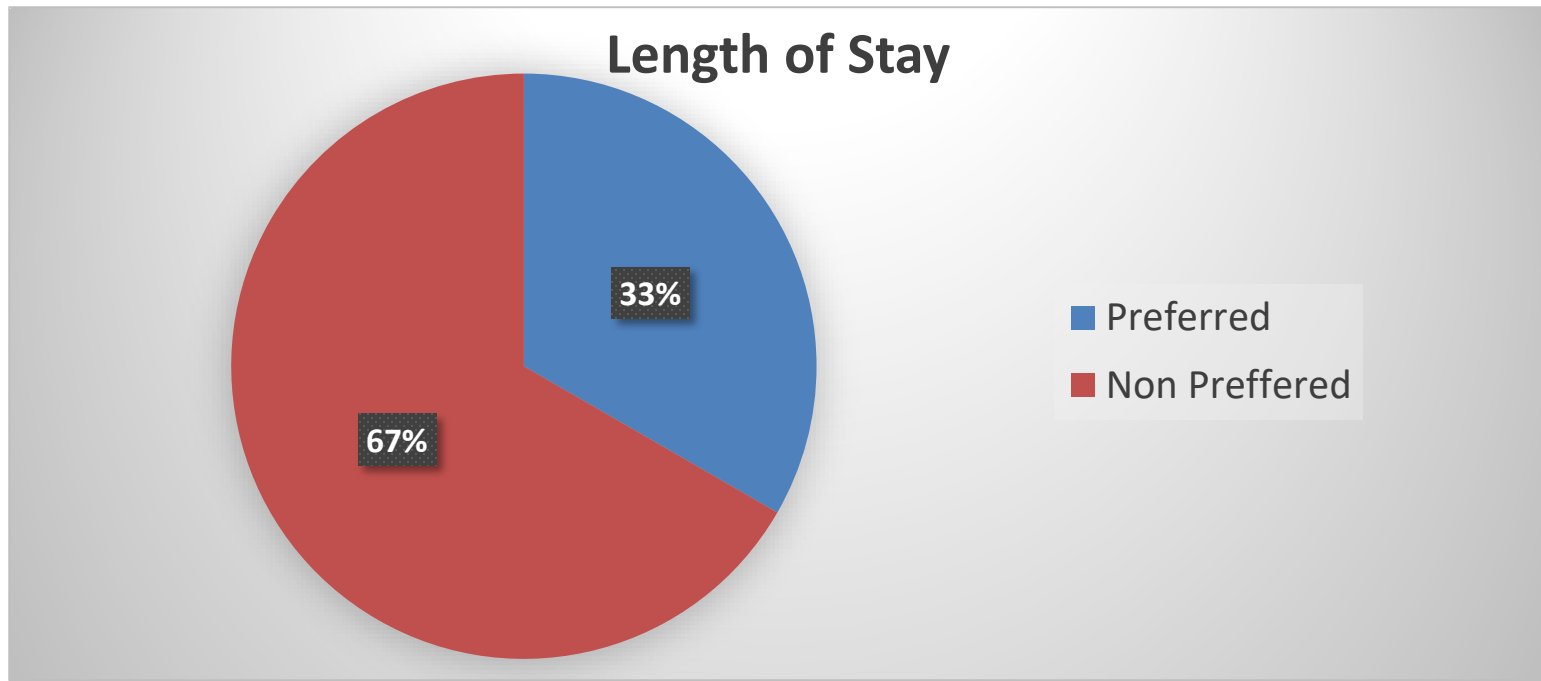
SNF Mean LOS Trend 470 without fracture

23

Model Year 1: SNF per Episode Savings

SNF Per Episode Savings

Facility	Baseline Cost p/Day	Baseline LOS	Current LOS	LOS Reduction	SNF p/Episode Savings
Chilton	$664	21.4	14.5	6.9	$4,564
Morristown	$559	18.0	12.5	5.5	$3,070
Newton	$584	21.3	14.7	6.6	$3,839
Overlook	$595	21.3	12.8	8.5	$5,060
Grand total	**$591**	**19.8**	**13.1**	**6.7**	**$3,953**

Discharge Home Trend: Baseline versus Current

Discharge Disposition by Month Baseline
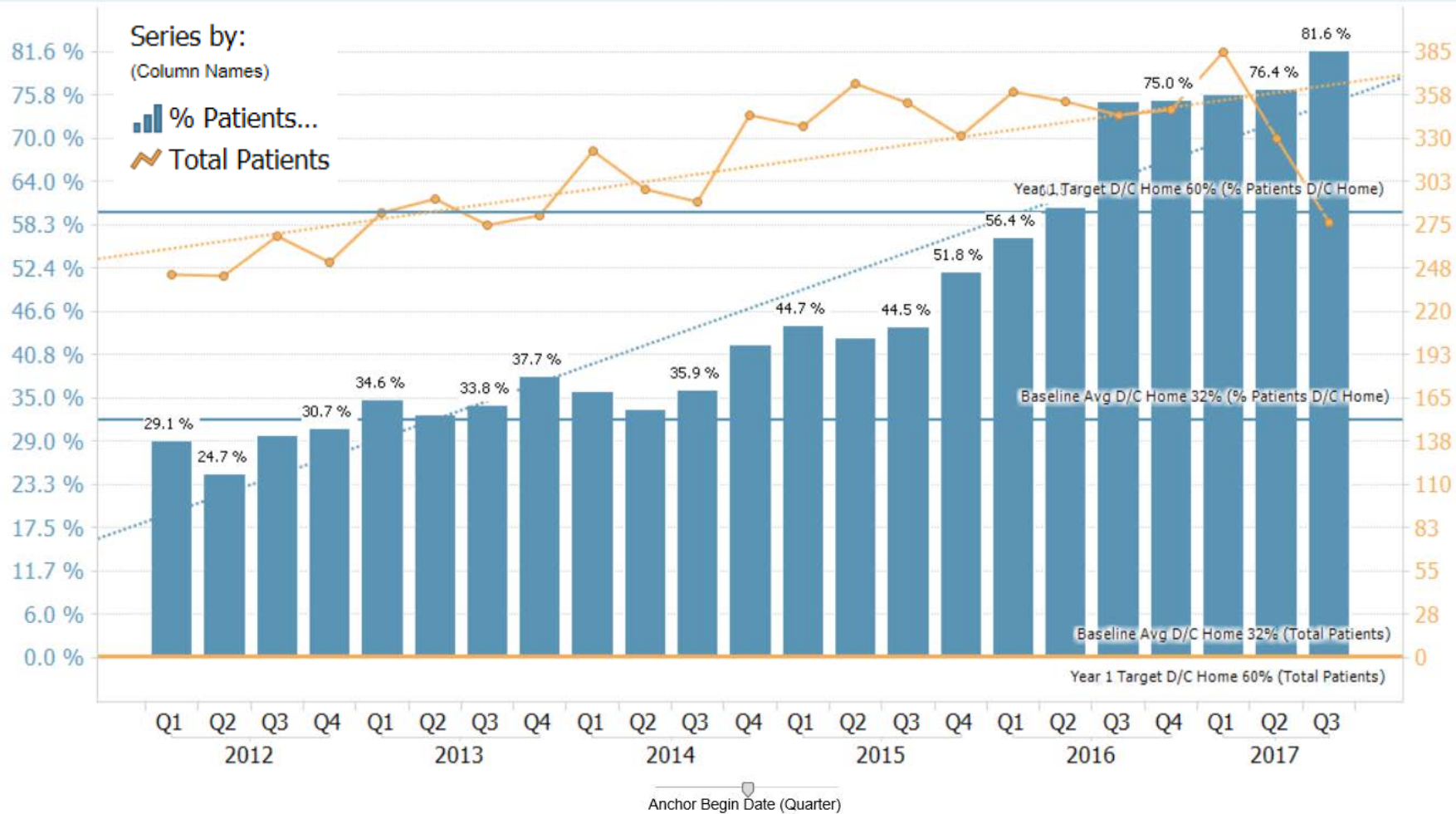
Model Year 1 – Physician Report Card

Physician Performance

Surgeon	Episodes	Total Episode Paid	Avg Cost p/Episode	Readmit Rate	% SNF 1st PAC	% IRF 1st PAC	% HH 1st PAC	% Home 1st PAC
	162	$3,949,957	$24,382	10 %	24 %	6 %	54 %	17 %
	162	$3,079,136	$19,007	7 %	10 %	2 %	12 %	75 %
	36	$1,090,342	$30,287	17 %	28 %	11 %	53 %	8 %
	34	$836,766	$24,611	12 %	6 %	9 %	68 %	18 %
	31	$686,815	$22,155	0 %	45 %	0 %	48 %	6 %
	31	$733,624	$23,665	13 %	58 %	0 %	32 %	10 %
	28	$700,816	$25,029	4 %	32 %	7 %	46 %	14 %
	25	$592,997	$23,720	8 %	44 %	0 %	24 %	32 %
	24	$648,632	$27,026	21 %	38 %	0 %	50 %	13 %
	18	$503,839	$27,991	6 %	78 %	0 %	17 %	6 %
	18	$489,826	$27,213	6 %	39 %	6 %	50 %	6 %
	17	$369,111	$21,712	12 %	24 %	6 %	65 %	6 %
	16	$451,029	$28,189	6 %	69 %	13 %	13 %	6 %
	16	$460,447	$28,778	19 %	31 %	19 %	6 %	44 %
	15	$438,600	$29,240	7 %	0 %	80 %	13 %	7 %
	14	$371,085	$26,506	14 %	7 %	57 %	36 %	0 %
	11	$425,713	$38,701	27 %	45 %	9 %	36 %	9 %
	9	$195,672	$21,741	11 %	67 %	0 %	33 %	0 %
	8	$286,351	$35,794	13 %	0 %	50 %	38 %	13 %
	8	$170,354	$21,294	0 %	38 %	13 %	50 %	0 %

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CJR Year 1 Goals and Successes

Increase discharge disposition to home

117% increase in patients going home

Decrease LOS for patients going to post-acute care facility (SNF or IRF)

52% decrease in LOS

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Year 1 Reconciliation Payment

Measure	Morristown Medical Center	Chilton Medical Center	Newton Medical Center	Overlook Medical Center
Reconciliation Payment	$831,052.60	$97,857.87	$82,418.98	n/a
Reconciliation Payment National rank	2	135	152	n/a
Reconciliation Payment National percentile	100%	83%	81%	n/a
Reconciliation Payment State rank	1	14	15	n/a
Reconciliation Payment State percentile	100%	63%	61%	n/a
Quality Score	Excellent	Good	Excellent	Below Acceptable

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The Program- Quality

- Quality results $\Rightarrow$ $$
- Composite Quality Score determines discount
- Minimum "Acceptable" score to receive any reconciliation payment
- Higher Score = less $ for you to pay back to CMS or more to receive

CJR Composite Quality Scoring			
Quality Category	Maximum Points	Score Allocation	Notes
Complications (RSCR) for THA/TKA (NQF # 1550)	10	50%	Based on hospitals decile performance nationally
HCAHPS (NQF #0166)	8	40%	Based on hospital's decile performance nationally
PRO Submission	2	10%	Voluntary year 1-3, may be mandatory year 4-5

Quality Score

Performance Percentile	THA/TKA Complications Measure Quality Performance Points	HCAHPS Survey Measure Quality Performance Points
≥ 90th	10.00	8.00
≥ 80th and <90th	9.25	7.40
≥ 70th and <80th	8.50	6.80
≥ 60th and <70th	7.75	6.20
≥ 50th and <60th	7.00	5.60
≥ 40th and <50th	6.25	5.00
≥ 30th and <50th	5.50	4.40
<30th	0.0	0.0

- **Need to be at least 30th percentile on _either_ metric.**

- **Overlook fell short**

Focus on Improvement

HCAHPS
- System wide focus on Patient Experience

Risk Standardized Complication Rate
- Work on Standardizing process of pre-op assessment
- Focus on getting patients to Class (lowest performer in System)
- Education of Medical and ER teams on how to best handle a patient who returns with a problem

Break the Cycle
- No gainshare in year 1
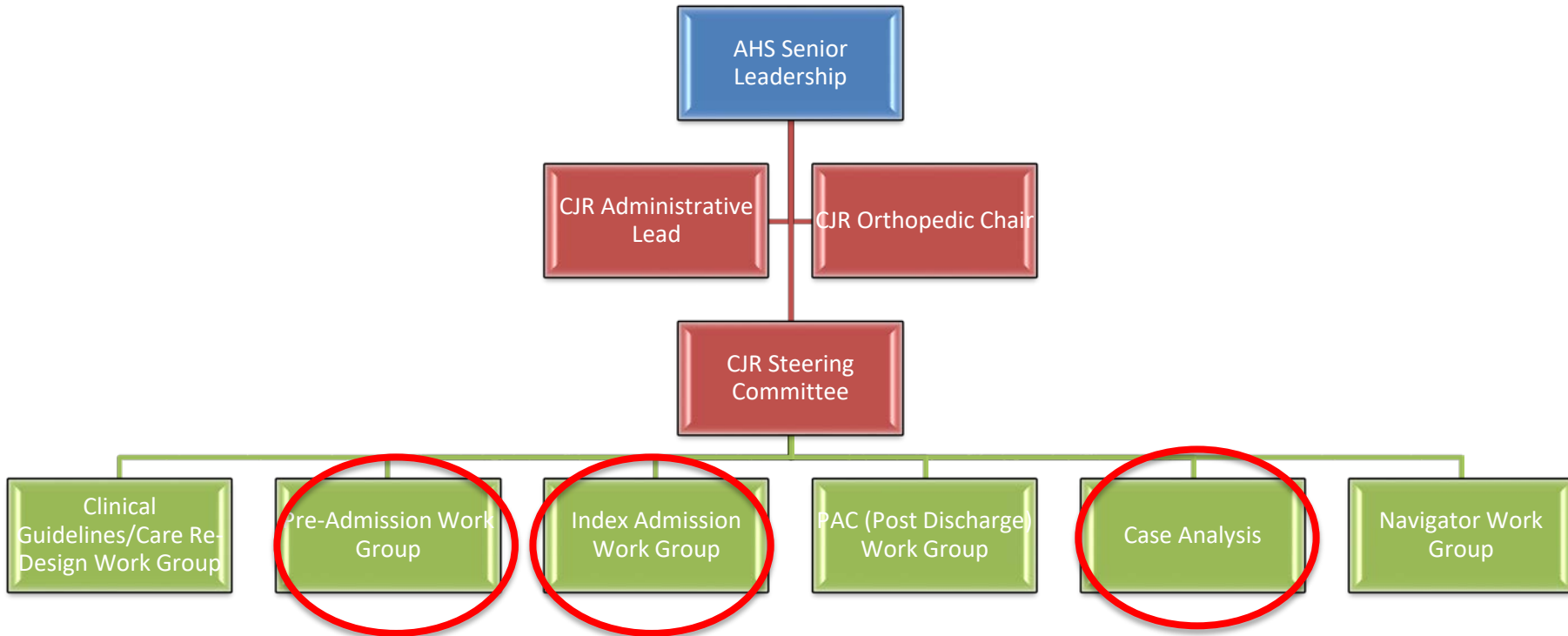- More difficult to get surgeon alignment for future years
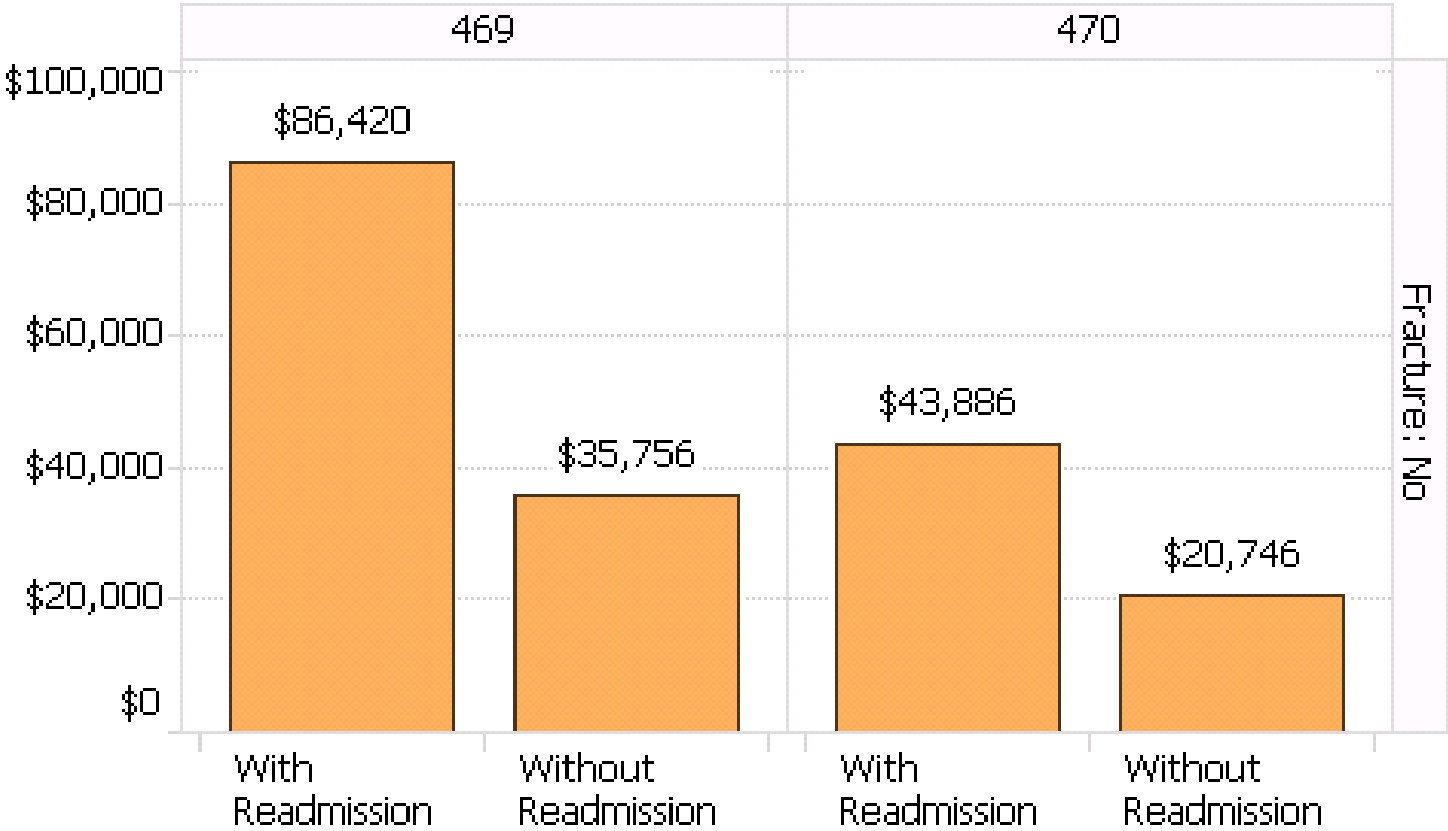
Alignment with System Goals:

Correlates to Value Based Care Penalties

Drives Cost and Spend

Decrease Complications & Readmissions
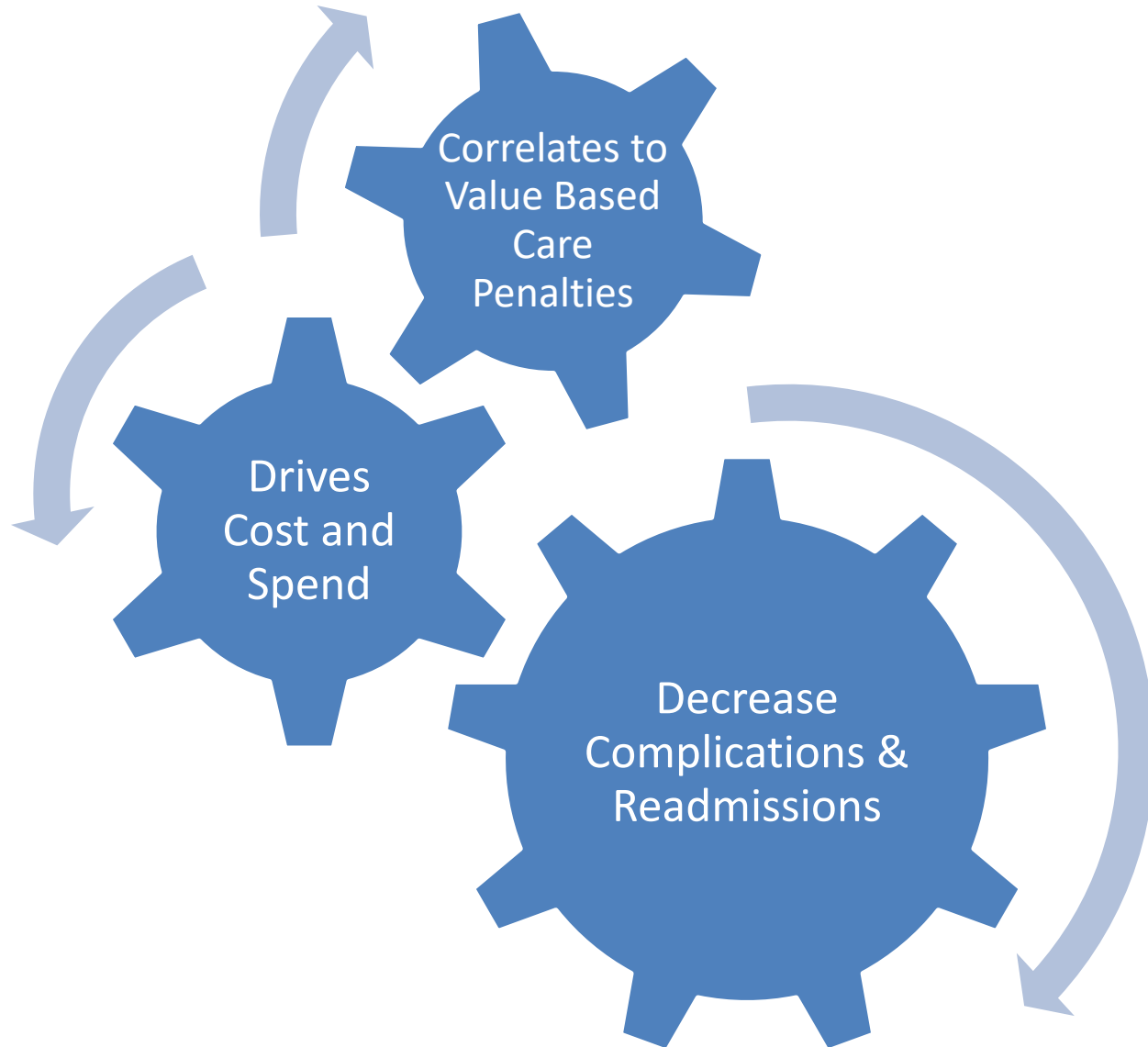
Focus for Model Year 2
Readmission & Complication Reduction

Model Year 1 - Readmission Data

Episode Paid Amount w/wo Readmission

	469		470	
	With Readmission	Without Readmission	With Readmission	Without Readmission
Amount	$86,420	$35,756	$43,886	$20,746

Fracture: No

Model Year 3 & Next Steps

Implementation of Epic
- Work with the Transitions of Care team to develop Healthy Planet
- Creating flags in Epic for CJR Patients

Implementation of Mobile Integrated Health Program
- 24/7/365 Nurse Assisted Hotline for CJR Patients
- Sending MIH home with high patients who go home with no needs
- 27/4/365 Critical Care Response at home

Implementing Readmission Risk Assessment Tool
- Smoking
- HbA1c
- BMI/Obesity
- Tracking Metrics for Case Study

Continually Reviewing Financial Data for Areas of Improvement
- Inpatient cost- single brand implants

Commercial Bundles
- Best practices already established
- physicians of mindset that elective patients go home

Physician Gainsharing
- Physicians getting the choice to take on risk for a higher percentage of gainsharing

Additionally Risk Stratification Opportunities / Strategies

Opportunity	Strategy
Patients have risk factors that are not necessarily optimized prior to Surgery - Examples: Morbid obesity, smoking, Diabetes	Implementation of Readmission Risk Assessment Tool (RRAT).

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CJR Readmission Reduction – RRAT tool

RRAT RISK FACTOR	POINT VALUE	RECOMMENDED INTERVENTIONS
MRSA colonization Every patient is screened, if +positive must require interventions	3	• Nasal mupirocin • Chlorhexidine gluconate wash *For 5 days prior to surgery date
Smoking *Non-smoker is considered someone who quit 4 to 8 weeks before surgery	1	• Smoking cessation program • Prescription for nicotine patches
Obesity BMI>40 BMI 35-39.9 BMI 30-34.9	3 2 1	• Refer to Metabolic Medicine – Bariatric consult • Weight Loss programs • Nutritional counseling • Community complimentary nutrition services
Cardiovascular Disease *If patient has history of smoking, CAD, Cardiac stents, MI, CVA & PVD with treatment	1	• Must be optimized by cardiologist
VTED Previous PE or DVT VTED risk factors: CVA, COPD, BMI>40, CAD, PVD, APC resistance	2 1	• Aggressive VTED management
Neurocognitive, psychological and behavioral Alcohol or drug abuse **If patient has 6-8 drinks per day TBI, psychiatric illness, dementia History of depression	2 1 1	• Refer to AHS Behavioral health
Physical Deconditioning Wheelchair - bound Comorbidities affecting physical function and ambulation	2 1	• PT evaluation • Prehab program
Diabetes Fasting blood glucose >180 HbA1C >8 Well controlled	3 2 1	• Refer to endocrinologist • Refer to Diabetes Center • Diabetes self-management programs
TOTAL		

Estimated Readmission Risk
0 - 0.60%   1 - 1.08%   2 - 1.91%   3 - 3.45%   4 - 6.18%   5 - 11.05%   6 - 19.74%
(Scores of 4,5 & 6 need to be reported to surgeon)

PATIENT LABEL _____

- Developed at NYU
- Published in JBJS 2015

<u>Risk Factors</u>
- Staph Aureus colonization
- Smoking
- Obesity
- Cardiovascular Disease
- Venous Thromboembolic Disease
- Neurocognitive problem
- Physical Deconditioning
- Diabetes

- RRAT score ≥3 – significantly associated with readmissions.
- May be a clinically useful tool to mitigate risk.

RRAT Objectives:
Operate on Healthier Patients

- RRAT tool will be collected on CJR Elective Total Joint

- If patient is "high risk" information will be provided to the surgeon <u>prior</u> to surgery along with an estimate risk of readmission

- The surgeon will also be provided with a recommendation as to how to intervene in each high risk area.

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Morristown Medical Center
Overlook Medical Center
Newton Medical Center
Chilton Medical Center

DATE:

Dr. _____

Your Comprehensive Care for Joint Replacement (CJR) Patient _____
was seen in Pre Admission Testing today. Upon completion of the Readmission Risk Assessment Tool
(RRAT), the patient scored a _____.

Your patient's following risk factors:

_____ MRSA Colonization	_____ VTED
_____ Smoking	_____ Neurocognitive, Psychological and Behavioral
_____ Obesity	_____ Physical Deconditioning
_____ Cardiovascular Disease	_____ Diabetes

are predictors as likely for 'Readmission' for Patients undergoing total joint arthroplasty (TJA) with an
Odds for **Readmission at** (circle one)   6.18%   11.05%   19.74%

We recommend the following Intervention(s):

_____ Nasal mupirocin & chlorhexidine gluconate wash *For 5 days prior to surgery date	
_____ Smoking cessation program	_____ Prescription for nicotine patches
_____ Refer to Metabolic Medicine – Bariatric consult	_____ Weight Loss programs
_____ Community complimentary nutrition services	_____ Nutritional counseling
_____ Must be optimized by cardiologist	
_____ Aggressive VTED management	
_____ Refer to AHS Behavioral health	
_____ PT evaluation	_____ Prehab program
_____ Refer to endocrinologist	_____ Refer to Diabetes Center
_____ Diabetes self-management programs	

Sent by: _____

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