2017 Cancer Center Business Summit

Transforming the Business of Oncology through Science and Technology
The Oncology Care Model: Evolving Best Practices
The Oncology Care Model
Evolving Best Practices

- Diana Verrilli, McKesson Specialty Health
- Brenton Fargnoli, M.D., Flatiron Health
- Barbara McAneny, M.D. New Mexico Oncology Hematology Consultants
- Ed Bassin, Ph.D., Archway Health
Panelists Will Describe

- Their respective experience with OCM to date
- Lessons learned and challenges moving forward
- Practical solutions for meeting OCM requirements
OCM Status Summary

• OCM Program commenced July 1, 2016
• Purpose: further CMMI’s three-part aim within oncology of better care, smarter spending and healthier people
• Currently in Performance Period 1 (Jan 1 - June 30, 2017)
• Parsing through quality measure/clinical data reporting requirements. Delays in launching the OCM reporting registry. First reporting deadline: Feb 28
• “Kick the tires” site visits starting to take place
• Claims data to be available March 2017 for Q1 (July-Aug-Sept 2016). Available quarterly thereafter.
OCM Questions Du Jour

• How can I get more efficient with my OCM quality measure/clinical data reporting? Is there an automated solution (EMR)?

• How am I doing – am I on track to earn PBP?

• Should I consider 2-sided risk as an APM alternative to MIPS?
The Oncology Care Model
Evolving Best Practices

Diana Verrilli
Senior Vice President, Payer & Practice Management Solutions
McKesson Specialty Health
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OCM and The US Oncology Network: The First 6 Months

- 13 Network practices
- 800+ physicians
- 17,000 patients enrolled in 1st 6 mo.

Integrated Technology
- iKnowMed
- Decision support
- Clear Value Plus
- Practice Insights

Value Based Care Best Practices:
- Actionable Analytics
- Navigation & Team Care
- Urgent Care Slots
- Patient Facing Tx Plans (Network standard)
- My Choices, My Wishes
- Core Eligibility & Enrollment Principles

- Medical Oncologists
- Radiation Oncologists
- Hematologists
- Oncology Surgeons
- GYN Oncologists
- Urologists
- Colo/Rectal, Neuro, Thoracic, ENT, Pathology, Radiologists

- Investing in care teams & enhanced services
- 94% of planned MEOS forecast
Quality and Clinical Data Reporting

Data Capture
* iKnowMed Generation 2

Ongoing Monitoring & Submission
* Practice Insights

Performance Drilldowns:
- Care team/physician performance
- Patient details
- Target performers & outliers

Submission to CMMI
Optimizing Claims Data to Support Practice Transformation and Best Practices

- Peer benchmarking from CMMI & The US Oncology Network
- Side-by-side performance by site and provider
- Forecasting trend factors total cost targets

Baseline Analyses on Claims
- OCM1: Hospitalizations
- OCM2: ER visits
- OCM3: Hospice
- Chemo in last 14 days
- Death in the hospital paired with ICU admit
- PET scan utilization
- Growth factors utilization
Team Care Huddles
CHALLENGES
OCM Program Challenges

• Pace of program changes and amount of information from CMMI

• Identifying patients
  – Oral treatment regimens & access to real time Medicare Rx fill data

• Practice transformation, e.g., completion of IOM care plan

• Complexity of care partner and pooling relationships

• OCM Data Registry submission process and registry readiness
The Oncology Care Model
Evolving Best Practices

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Flatiron Health
New York, New York
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Flatiron Practices in OCM

The Oncology Care Model

Flatiron
55 practices
## OCM Challenges

<table>
<thead>
<tr>
<th>FOCUS AREA</th>
<th>CHALLENGES</th>
</tr>
</thead>
</table>
| Care Management                | • How do I identify eligible patients?  
|                                | • How do I keep track of everything?  
|                                | • How do I ensure patients are informed about their care plan?                                 |
| Program Evaluation & Reporting | • How do I measure our quality?  
|                                | • How can I improve performance?  
|                                | • How do I report to the registry?                                                              |
| Revenue Cycle Management       | • How do I optimize our income in the model?                                                     |
How Flatiron is Solving OCM Challenges

<table>
<thead>
<tr>
<th>FLATIRON’S OCM SOLUTION</th>
<th>IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Care Management</strong></td>
<td></td>
</tr>
<tr>
<td>• Patient Identification @ point of care</td>
<td>30,000+ OCM Patients in Episode</td>
</tr>
<tr>
<td>• Patient tracking</td>
<td></td>
</tr>
<tr>
<td>• Auto-generated IOM Care Plans</td>
<td></td>
</tr>
</tbody>
</table>

| **Program Evaluation & Reporting** |        |
| • Structured data capture in OncoEMR | 500+ Quality Measure Calculations for Reporting |
| • OCM Quality Measure Dashboard   |        |
| • OCM Registry Reporting         |        |

| **Revenue Cycle Management** |        |
| • MEOS Billing + Collections Tracking | $25M+ Potential Additional Practice Revenue |
| • PBP Cost of Care Analytics   |        |
The Oncology Care Model
Evolving Best Practices

Barbara McAneny, M.D.
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New Mexico Oncology Hematology Consultants
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OCM is a Payer-Driven Model

top-down approach

Payer-Driven

Payer identifies problem (oncology costs too high)

Payer changes reimbursement structure

Practices change (or fail)
Oncology Care Model (OCM)

**Patient Population:**
- The CMMI OCM Payment Model applies to all patients with a new chemotherapy start.

**Episode Definition:**
- 6 months following new chemotherapy start, repeatable.

**Payments**
- The OCM model will pay physicians in three ways:
  - Normal FFS Payments
  - $160 PBPM (per beneficiary per month)
  - Shared Savings/Risk Sharing

**Episode Price/Discount to Medicare**
- 4% discount for practices participating in shared savings
- 2.75% discount for practices accepting full risk
Meeting OCM requirements and adding Value

- Efficient use of personnel
- Documentation of OCM requirements using minimal resources
- Can we turn the Care plan and survivorship documents into valuable features to patients?
- Will the entire MEOS payment be used in the processes to achieve it?
Everyone works to the top of their license

- Defined, efficient workflows
- Standardized protocols & good communication
Specialization within oncology nursing and non-clinical staff
Documentation

• Essential functions to be documented by the doctors
  – DIAGNOSIS
  – STAGING
  – INTENT OF THERAPY (includes outcomes expected)
  – PERFORMANCE STATUS & PE
  – CHEMOTHERAPY & TEST ORDERS
  – GENOMICS

• Can we have everything else done by others?
Care Plan Requirements

- Patient information (e.g., name, date of birth, medication list, and allergies)
- Diagnosis, including specific tissue information, relevant biomarkers, and stage
- Prognosis
- Treatment goals (curative, life-prolonging, symptom control, palliative care)
- Initial plan for treatment and proposed duration, including specific chemotherapy drug names, doses, and schedule as well as surgery and radiation therapy (if applicable)
- Expected response to treatment
- Treatment benefits and harms, including common and rare toxicities and how to manage these toxicities, as well as short-term and late effects of treatment
- Information on quality of life and a patient’s likely experience with treatment
- Who will take responsibility for specific aspects of a patient’s care (e.g., the Cancer care team, the primary care/geriatrics care team, or other care teams)
- Advance care plans, including advanced directives and other legal documents
- Estimated total and out-of-pocket costs of Cancer treatment
- A plan for addressing a patient’s psychosocial health needs, including psychological, vocational, disability, legal, or financial concerns and their management
- Survivorship plan, including a summary of treatment and information on recommended follow-up activities and surveillance, as well as risk reduction and health promotion activities
## History

**Care Management Plan**

<table>
<thead>
<tr>
<th>Visit Type</th>
<th>Initial Consultation</th>
<th>Followup</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Oncologist</td>
<td>Clear</td>
<td>Dr. Aldina</td>
<td>Dr. Avitia</td>
</tr>
<tr>
<td>Supervising Oncologist</td>
<td>Clear</td>
<td>Dr. Aldina</td>
<td>Dr. Avitia</td>
</tr>
</tbody>
</table>

### Patient Information
- **Vital Signs**: Height: 59, Weight: 212.2, BMI: 31.89

### Allergies
- No known drug allergies

### Medications
- No outside medications reported per patient

### Diagnosis
- **11/17/2015**: Agranulocytosis secondary to cancer chemotherapy

### Physicians Involved
- Patient Care Physicians Involved in Patient Care

### Medical History
- New Problem/Diagnosis: No problems have been entered.

### Surgical History
- **Edit 1**: Hernia Repair
- **Clear**
  1. Amputation - 2016 - GIMC
  2. Lymphectomy - 2003 - Presbyterian
- Past surgical history unchanged
- Negative
- Bone Marrow Bx
- Port-a-Cath
- AICD
- Pacemaker
- Cataract Surgery
- Septoplasty
- Tooth Extraction
- Facial Cosmetic Surgery
- Tonolitomy + / - Adenoids
- Thyroidectomy
- EGD
- Carotid Endarterectomy
- CABG
- Angioplasty
- Cholecystectomy
- Splenectomy
- Appendectomy
- Gastric Bypass
- Small bowel resection
- Colectomy
- Hemorrhoidectomy
- Prostatectomy/TURP
- Bladder Surgery
- Right Nephrectomy
- Left Nephrectomy
- Bilateral Nephrectomy
- Prostatectomy
- Right knee replacement
- Left knee replacement
- Right hip replacement
- Left hip replacement

### Comorbidities
- **Edit**
- Clear
- Arthritis
- Asthma
- Atrial fibrillation
- Blindness
- CAD
- Cardiac Arrhythmia
- Cataract
- Celiac Disease
- Crohn's Disease
- COPD/Emphysema
- Depression
- NOS
- Diabetes NOS
- DNR
- Fibromyalgia
- GERD
- Gastroesophageal reflux disease
- GI bleed
- Gilbert Syndrome
- Gout
- Heart Failure/CHF
- Hepatitis chronic unspecified
- Herpes Zoster
- History of DVT
- History of PE
- History of Seizures
- Hypertension
- Hypercholesterolemia
- Hyperlipidemia
- Hypertension
- Hypothyroidism
- Hyperthyroidism
- Immunodeficiency unspecified
- Lupus
- Lymphedema
- Macular Degeneration
- MI
- Migraine
- Osteopenia
- Osteoporosis
- Pancreatitis
- Parkinson's
- Peptic Ulcer Disease
- Prostate Disease
- Raynaud's Syndrome
- Rheumatoid Arthritis
- Sjogren's syndrome SjCO
- Sleep Apnea
- Spinal Stenosis
- Ulcerative Colitis
### Treatment

#### Hydration
- NS 1000 mL IV 8:00 AM

#### Treatment Goals
- Clear
- Palliative
- Symptom Control
- Life prolonging

#### Initial Plan for Treatment Edit
- Oncologic/Hematologic History
- Clear
- Proposed Duration
- Clear

#### Expected Response to Treatment Edit
- Prognosis
- Clear
- Possible Side Effects

#### General Edit
- General: Fatigue, hair loss
- Clear
  - Hair loss
  - Fatigue

#### Skin Edit
- Skin: Clear
  - Hand and Foot Syndrome
  - Acne rash
  - Sun Sensitivity
  - Other

#### Neurologic Edit
- Neurologic: Neuropathy
- Clear
  - Memory Loss

#### Autoimmune Edit
- Autoimmune: Clear
  - Low Thyroid Level
  - Wound healing complications
  - Fistula Formation
  - Hemorrhage
  - Increased blood pressure

### Pulmonary Edit
- Pulmonary: Clear
- Fibrosis
- Cardiac Edit: Cardiac
- Clear
  - Weakening of heart muscle
  - Congestive heart failure

#### Sexuality Edit
- Sexuality: Clear
  - Infertility
  - Vaginal Dryness
  - Impotence
  - Low Libido

#### Psychosocial Edit
- Psychosocial: Clear
  - Employment
  - Financial

#### As Needed Medications Edit
- Aloxin
- Ativan
- Atropine
- Compazine
- Dexamethasone
- Imodium
- Zofran

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![NMCC Logo](NMCC_Logo.png)
Side Effects of Treatment

### Possible Side Effects of Treatment

1. Possible Side Effects
2. Long Term Side Effects
3. Psychosocial

<table>
<thead>
<tr>
<th>Possible Side Effects of Treatment</th>
<th>Assessment and Plan</th>
<th>When To Call</th>
</tr>
</thead>
<tbody>
<tr>
<td>General: Fatigue, hair loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin Edema</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acne-like rash</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neurologic Neuropathy</td>
<td></td>
<td></td>
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<tr>
<td>Autoimmune Autoimmune</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Thyroid Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wound healing complications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fistula Formation</td>
<td></td>
<td></td>
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<tr>
<td>Hemorrhage</td>
<td></td>
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<tr>
<td>Increased blood pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fistula Formation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vomiting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diarrhea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mouth Sores</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychosocial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin Edema: Skin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clear</td>
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<td>Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiac Edema</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleepiness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disability</td>
<td></td>
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</tr>
</tbody>
</table>

(C) Innovative Oncology Business

NMCC New Mexico Cancer Center
New Mexico Oncology Hematology Consultants, Ltd.
Follow up/Referrals

<table>
<thead>
<tr>
<th>Genetic Consult</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Survivorship Plan Edit</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Cardiac Symptoms</td>
<td>□ Lipid Monitoring</td>
<td>□ Diabetic Monitoring</td>
</tr>
<tr>
<td>□ Fatigue</td>
<td>□ Neuropathy</td>
<td>□ Sexual Dysfunction</td>
</tr>
<tr>
<td>□ Financial</td>
<td>□ Vitamins and Neurocetusals</td>
<td>□ Genetics</td>
</tr>
<tr>
<td>□ Second Cancer Risk</td>
<td>□ Hypothyroid Risk</td>
<td>□ Cardiac monitor for</td>
</tr>
<tr>
<td>□ Pulmonary monitor for</td>
<td>□ Monitor for Depression/Anxiety</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Referral Edit</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Rehab</td>
<td>□ Social Service/Financial</td>
<td></td>
</tr>
<tr>
<td>□ Infertility</td>
<td>□ Nutrition</td>
<td></td>
</tr>
<tr>
<td>□ Psychological Counseling</td>
<td>□ Sexual Function</td>
<td></td>
</tr>
<tr>
<td>□ Provider</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Financial Counselor</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>□ Documented Cost</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Status</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Scheduled</td>
<td>□ Completed</td>
<td>□ Plan Provided to Patient</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patient Education</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Provided</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Spent with Patient</th>
<th></th>
<th></th>
</tr>
</thead>
</table>
Financial Outcomes
OCM model performance evaluated on the subset of episodes: $R^2 = .334$

Construct our own GLM and split the data into training and test sets:

$R^2$ train: .300

$R^2$ test: .280
1,000 simulated Performance Periods using baseline prices and actual expenses from NMCC, to include NMCC case mix and practice patterns. According to these simulations, NMCC will see a shared savings payment in 37 out of 1,000 Performance Periods (3.7%)
Aggregate (Performance Period) Cost Modeling – Shared Savings

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Performance Period Actual Expenses</td>
<td>$6,845,238</td>
</tr>
<tr>
<td>Average Performance Period Baseline Price</td>
<td>$6,620,624</td>
</tr>
<tr>
<td>Average Performance Period Shared Savings Target</td>
<td>$6,355,790</td>
</tr>
<tr>
<td>MEOS Payments per Performance Period</td>
<td>$228,480</td>
</tr>
<tr>
<td>Savings needed to achieve Shared Savings PBP ($)</td>
<td>$717,928</td>
</tr>
<tr>
<td>Savings needed to achieve Shared Savings PBP (%)</td>
<td>10.5%</td>
</tr>
</tbody>
</table>

\[ \text{Savings to achieve PBP} = (\text{Actual Expenses} - \text{Target}) + \text{MEOS} \]

\[ \text{Savings to achieve PBP} = ($6,845,238 - $6,355,790) + $228,480 \]

\[ \text{Savings to achieve PBP} = $489,448 + $228,480 \]

\[ \text{Savings to achieve PBP} = $717,928 \text{ (10.5\%)} \]
### Aggregate (Performance Period) Cost Modeling – Full Risk

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Performance Period Actual Expenses</td>
<td>$6,845,238</td>
</tr>
<tr>
<td>Average Performance Period Baseline Price</td>
<td>$6,620,624</td>
</tr>
<tr>
<td>Average Performance Period Full Risk Target</td>
<td>$6,438,614</td>
</tr>
<tr>
<td>MEOS Payments per Performance Period</td>
<td>$228,480</td>
</tr>
<tr>
<td>Savings needed to achieve Shared Savings PBP ($)</td>
<td>$635,104</td>
</tr>
<tr>
<td>Savings needed to achieve Shared Savings PBP (%)</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

*Savings to achieve PBP = (Actual Expenses − Target) + MEOS*

*Savings to achieve PBP = ($6,845,238 − $6,620,624) + $228,480*

*Savings to achieve PBP = $406,624 + $228,480*

*Savings to achieve PBP = $635,104 (9.3%)*
Baseline vs. Actual by Cancer Type

blue > red = practice losing money

Actual and Baseline Expenses By Cancer Type
Baseline vs. Actual by Cancer Type

blue > red = practice losing money
Baseline vs. Actual by Cancer Type

blue > red = practice losing money
Baseline vs. Actual by HCC Score

blue > red = practice losing money
The Oncology Care Model
Evolving Best Practices

Ed Bassin, Ph.D.
Chief Analytics Officer
Archway Health
Watertown, Massachusetts
ebassin@archwayha.com
How Are You Going to Save Money?

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Drugs</th>
<th>Cut Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>• ER and inpat. $</td>
<td>• Choosing protocols wisely</td>
<td>• Unneeded testing</td>
</tr>
<tr>
<td>• Triage and navigation keep patients out</td>
<td>• Increasing generic use</td>
<td>• Orals</td>
</tr>
<tr>
<td></td>
<td>• Avoiding new meds</td>
<td></td>
</tr>
</tbody>
</table>
# Hospital Variation is Key

## Discharge Mix for Largest Hospitals

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Home</th>
<th>Admitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>INC (759 visits)</td>
<td>34%</td>
<td>66%</td>
</tr>
<tr>
<td>INC (597 visits)</td>
<td>28%</td>
<td>72%</td>
</tr>
<tr>
<td>INC (579 visits)</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>iTY (312 visits)</td>
<td>62%</td>
<td>38%</td>
</tr>
<tr>
<td>TER (265 visits)</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>TER (240 visits)</td>
<td>17%</td>
<td>83%</td>
</tr>
<tr>
<td>TER (168 visits)</td>
<td>46%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Where Patient Goes
- **Home**
- **Admitted**
Assessing Drug Impact

Drug Regimen Evaluator

This tool is designed to help you evaluate different combination chemotherapy regimens. You select episodes meeting certain criteria, including the cancer type, the date range for the episodes, along with the drugs that are part of the regimen. You do not need to select all drugs in the regimen. Rather, you only need to select enough unique drugs to identify the regimen.

Cancer Type

All

Min. IP Admits:

Episode Start 01/02/2012

Date Range 01/01/2015

# of Comorbidities

All

Min. Drug Claims:

Combination Chemotherapy Definition

1st Drug Contains Carbo

2nd Drug Contains Paclit

3rd Drug Contains

Variable to plot

Winsorized Cost

Number of Bars 20

148 episodes selected

Winsorized Cost

# of Episodes

$0 $20,000 $40,000 $60,000 $80,000

2017 Cancer Center Business Summit
Random Variation is Unavoidable

Simulation of Variation from Price
Sample Size = 400

Simulation of 30 Random Reconciliations
with Gain/Loss Percentage, Sample Size=400
Aggregating Risk is Key for 2-Sided Risk
Panel Challenge Question

• From your perspective, what’s working and what’s not working with OCM?

• If there is one thing that you could do to improve OCM what would that be? [“Repeal and replace” is not a valid answer]