Lunch and learn:
Meet the experts: APR DRGs and EAPGs

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Health Policy Executive Summit 2022

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3M™ All Patient Refined Diagnosis Related Groups (APR DRG)

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Meet the speakers

Linda Bentley and Janice Bonazelli are both in the Clinical & Economic Research Department. This team creates all inpatient grouper software including APR DRG, MS-DRG and Tricare.

- Linda has been with 3M for over 33 years as a Clinical Analyst and Product owner for the inpatient methodologies.

- Janice has worked at 3M for over 33 years as a Clinical Analyst on Inpatient methodologies.

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APR DRG v40.0

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How APR DRGs create value

- Public Reporting
- Language of Heath Care
- Clinical Insight
- Risk Adjustment for Complications (Admission DRGs)
- Anchor for Episodes
- Surgical Mortality Indicator
- Case mix-Adjusted Payment and reference price pricing
- Measuring Risk of Mortality
- Risk Adjustment for Readmissions (Discharge DRGs)
- Efficiency analysis of Utilization and Cost stratified by patient severity
- ICU Intensity Severity Indicator
- APR and EAPG service line alignment (inpatient/outpatient analysis)

APR DRG v40

What is APR DRG?

The 3M™ All Patient Refined Diagnosis Related Groups (APR DRG) methodology classifies hospital inpatients by their reason for admission, severity of illness, and risk of mortality, at both time of admission and time of discharge. Each APR DRG comprises patients who are similar both clinically and in their use of hospital resources.

APR DRG weight files

Relative weight

- Standard
- HSRV

Two years of current NIS data from HCUP

Each year the previous year is overlapped, and the oldest year is dropped

APR DRG surgical mortality

- Systems is to provide incentives for hospitals to improve surgical performance that could improve surgical mortality performance through quality improvement initiatives.
- The mortality measure focuses on surgical mortality except for patients for whom a hospital is not reasonably responsible for the patient outcome, for example patients that left AMA, DNR, and surgical DRGs that reflect critical care.

Surgical mortality

Surgical mortality as a measure of hospital quality study

(https://multimedia.3m.com/mws/media/2044672O/surgical-mortality-hospital-quality.pdf)

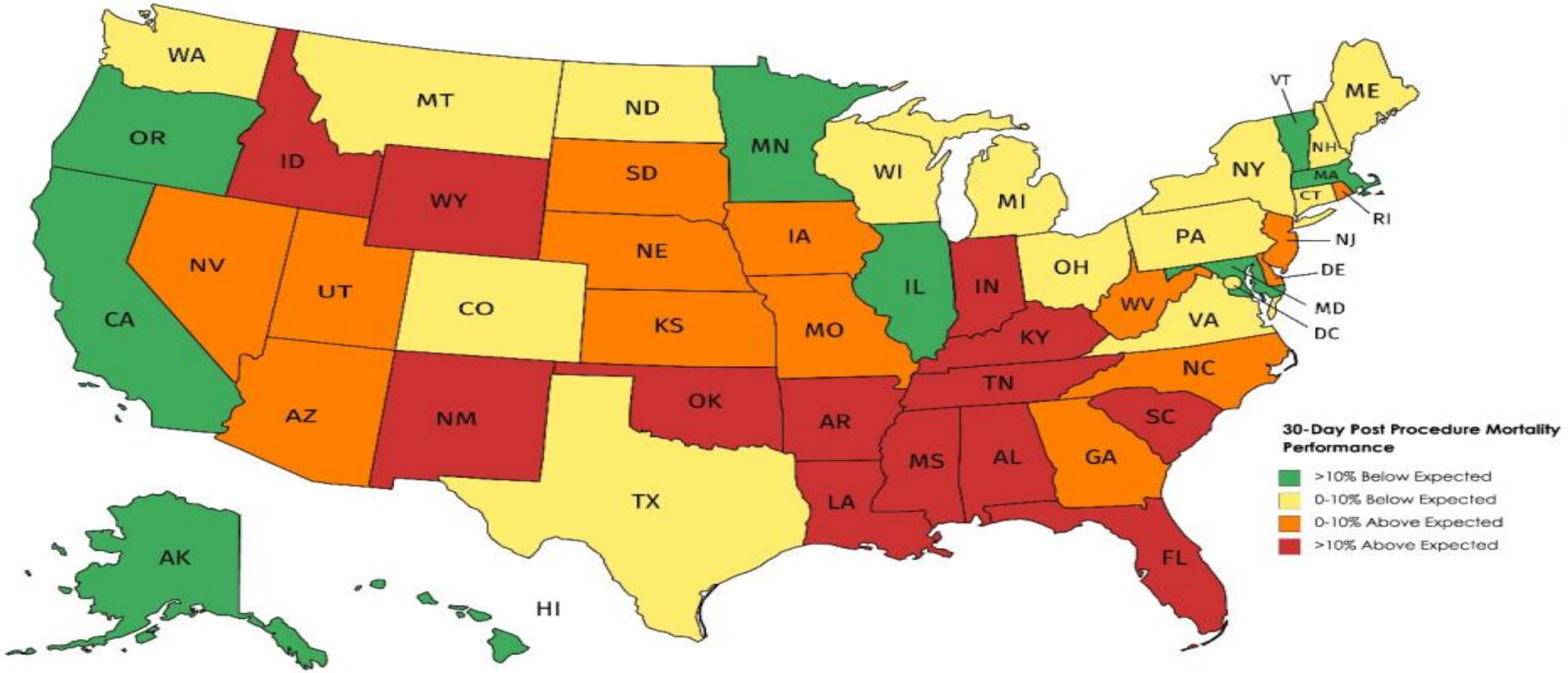
Results of study:

The 30-day post-procedure deaths in the 1,978,560 eligible admissions were as follows:

- 18,721 in-hospital deaths during an eligible admission
- 5,041 deaths during a clinically related readmission of an eligible admission
- 23,685 post-discharge community deaths during the 30-day post-procedure period of an eligible admission

Only 39.5 percent of the deaths occurred during the initial eligible surgical admission and the majority of deaths (60.5 percent) occurred in the community or during a clinically related readmission. The average number of days between discharge from the eligible admission to a clinically related readmission was 7.2 days with 62.9% of hose readmissions admitted at a ROM subclass of 4(Major)

APR DRG surgical mortality by state



Surgical mortality

- Measurement of surgical mortality can be used in pay for performance systems and public reporting systems
- Identifies health systems who may need quality improvement in order to reduce peri-operative mortality efforts.
- Better utilize resources.

ICU intensity marker

What is the ICU intensity marker

- Intensive care unit (ICU) utilization varies widely across hospitals for a broad range of medical conditions, resulting in increased costs but without consistent evidence for clinical benefit or reduced mortality.
- ICU Intensity Marker identifies certain diagnoses and procedures that are generally associated with the need for intensive care occurred among ICU admissions.

Benefits

- Improved ICU utilization.
- Provide more nearly appropriate level of care.
- Improve cost effectiveness.

APR-DRG roadmap

- Regulatory updates
- Surgical Mortality Indicator
- Comprehensive clinical review of Severity of Illness (SOI) and Risk of Mortality (ROM) with impact analysis
- Evaluation of procedure approach in use of DRGs assignment
- Research on Burn DRGs and Neonate DRGs

References and resources for APR DRGs

Publicly Available Materials

- APR DRG webpage www.3m.com/his/methodologies
- 3M APR DRG Methodology Overview
- Averill RF, Goldfield NI, Muldoon J, Steinbeck BA, Grant TM. A closer look at All Patient Refined DRGs. J AHIMA. 2002;73(1):46-49.
- Goldfield N. The evolution of diagnosis-related groups. Qual Manage Health Care. 2010;19(1)3-16.
- Muldoon J. Structure and performance of different DRG classification systems for neonatal medicine. Pediatrics. 1999;103(1 Suppl E):302-18.
- Quinn K. After the revolution: DRGs at age 30. Ann Intern Med. 2014;160:426-429.

Available to Licensees on the 3M Customer Support Website

- APR DRG Definitions Manual
- APR DRG Summary of Changes
- APR DRG Software Installation and User's Guide
- APR DRG Weights and Trims with Code Descriptions

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3M™ Enhanced Ambulatory Patient Groups (EAPG)

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Agenda

- Meet the speakers
- Introduction to EAPGs
- What's next
- References and resources

Meet the speakers

Anne Boucher and Lyn Wyskiel are both in the Clinical & Economic Research Department and members of *The Outlaws.* This team creates all outpatient payment grouper software including the Integrated Outpatient Code Editor (IOCE) and the Home Health grouper (HHGS) under our CMS contract, the Tricare Outpatient Code Editor (Tri-OCE), and the 3M Enhanced Ambulatory Patient Grouper (EAPG).

Anne has been with 3M for over 30 years in a variety of roles including international development and the transition to ICD-10-CM. She is the Outlaws team Product Owner.

Lyn has worked at 3M for over 18 years, 8 years as a Grouper/Reimbursement Requirements Analyst, and the last 10 years as a Clinical Analyst on Outpatient methodologies.

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Introduction to EAPGs

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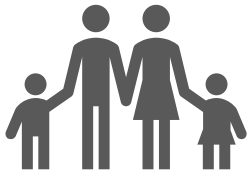
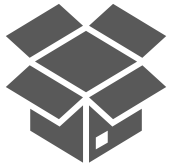
Introduction to EAPGs:

3M EAPGs are a comprehensive outpatient prospective payment system used to classify and enable effective resource utilization and drive quality insights.

Clinically meaningful	All populations	Flexible	Accuracy	Transparent
				
Outpatient data is grouped into clinically relevant categories, which supports meaningful improvements in the delivery of care.	**Not limited to the Medicare and Medicaid populations. It applies to all ambulatory patients.**	**Customize and choose among several options for bundling, including: consolidation, packaging, discounting, use of modifiers, handling medical visits and more.**	**Bundled approach allows for payment accuracy, efficiency, and analytical clarity to support payment and quality initiatives.**	**Detailed clinical logic, hierarchies and specifications are published in EAPG Definitions Manual which are updated regularly by 3M's clinical experts.**

3M's EAPGs classification is also used in 3M's PFP, PFE, PPR, and PPC groupers.

EAPG Definition:

Definition

3M EAPGs are designed to explain the amount and type of resources used in an ambulatory visit. These resources include pharmaceuticals, supplies, ancillary tests, equipment, type of room, treatment time, etc. Patients in each 3M EAPG share similar clinical characteristics, resource use and costs.

Classification

EAPGs are used to adjust for differences in the mix of services provided to ambulatory patients

- Payment to emergency departments, hospital outpatient departments, ambulatory surgical centers, other diagnostic and therapeutic clinics
- Analyses of utilization, provider cost, efficiency, charges, etc
- 3M potentially Preventable ED Visits

Examples

Significant Procedures

37 Level I Arthroscopy

192 Level II Fetal Procedures

271 Physical Therapy

318 Group Psychotherapy

Medical Visits

572 Bronchiolitis and RSV Pneumonia

604 Chest Pain

783 Sickle Cell Anemia Crisis

Ancillary Services

289 Level II Diagnostic Ultrasound

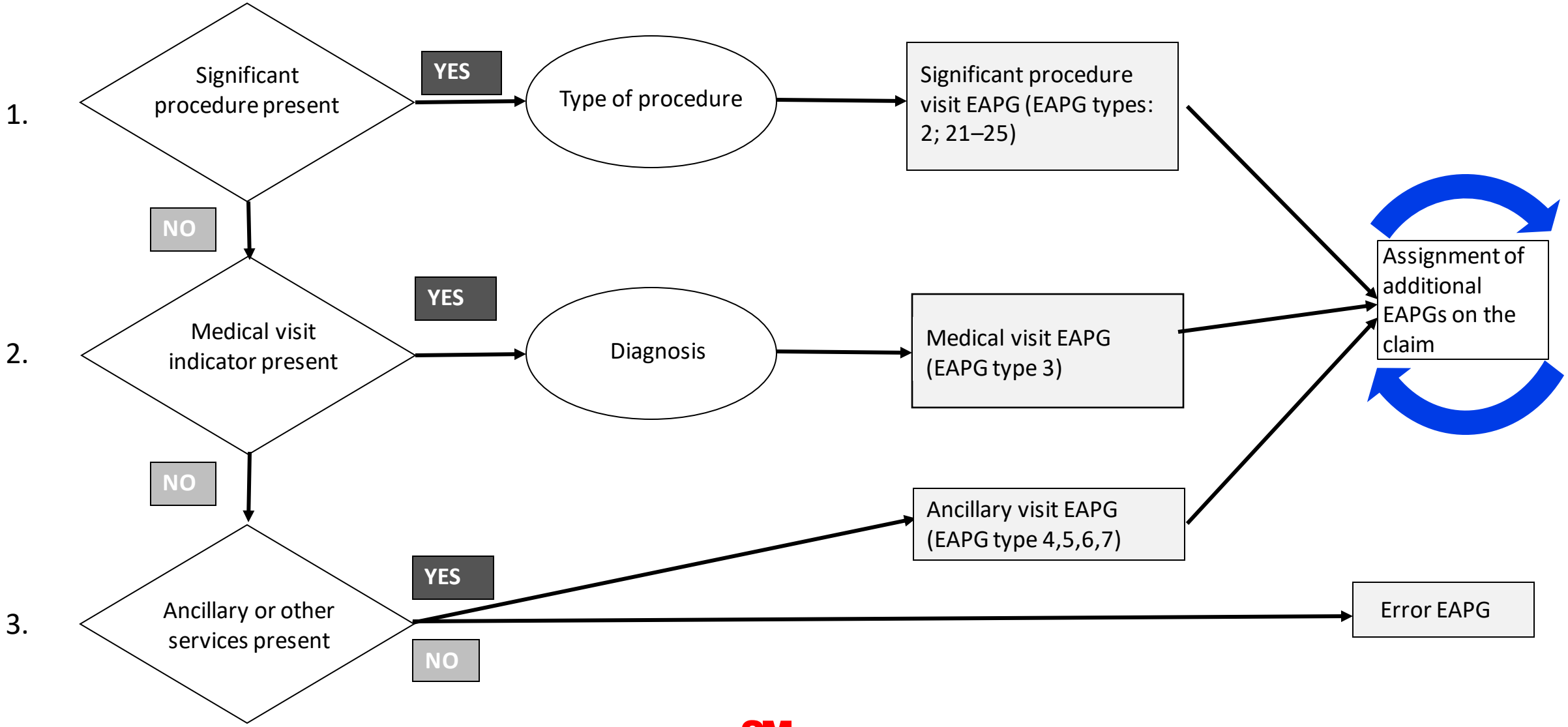
Incidental Services

2004 Incidental Minor Diagnostic Tests

Drugs

433 Class IV Chemotherapy Drugs

EAPG Visit Type:



Packaging, consolidation, and discounting with a Significant Procedure:

A patient undergoes a diagnostic cardiac catheterization. In addition to the usual package of services, cardioversion is required.

Ln	CPT/ HCPCS on the Claim	EAPG Assigned by 3M	EAPG Type	Payment Action	Rel Weight	Adj'd Rel Wt
1	93454-Coronary angiography only	84-Cardiac Catheterization Procedures	25-Diag/Ther Proc	1-Full payment	3.9393	3.9393
2	36556-Insert non-tunnel CV cath	75-Level 1 Central Venous Access Proc	25-Diag/Ther Proc	2-Consolidated	1.8819	-
3	92960-Cardioversion, elective	93-Cardioversion	2-Significant Proc	3-Discounted	1.0811	0.5406
4	99152-Moderate sedation	380-Anesthesia	4-Ancillary	4-Packaged (sig proc)	0.0400	-
5	84484-Assay of troponin quant	400-Level I Chemistry Tests	4-Ancillary	4-Packaged (sig proc)	0.0203	-
6	93000-ECG complete	413-Cardiogram	4-Ancillary	4-Packaged (sig proc)	0.0441	-
7	J1810-Fentanyl inj	496-Minor pharmacotherapy	6-Drug	4-Packaged (always)	-	-
8	J2250-Midazolam inj	496-Minor pharmacotherapy	6-Drug	4-Packaged (always)	-	-
9	94760-Measure blood oxygen	2004-Incidental Minor Diagnostic Tests	5-Incidental	4-Packaged (always)	-	-
10	**Visit total**				**7.0067**	**4.4799**
11	**Visit payment using example EAPG base rate of $500 (base rate chosen by payer)**					**$2,239.93**

Notes

1. The example is for illustration and is not clinically complete. Relative weights are EAPG v3.16 effective January 2021
2. EAPG users have flexibility in setting packaging options.

- The overall approach is to pay for the service overall, not separately for each component
- The EAPG base rate is set by the payer (e.g., budget neutral, increase, or decrease)

Packaging, consolidation and discounting with a medical visit:

Principal Diagnosis:								
	R079	Chest pain, unspecified						
Line	**CPT/HCPCS**	**Code Description**	**Units of Service**	**EAPG Desc**	**EAPG Type**	**Payment Action**	**Relative Weight**	**Adj'd Rel Weight**
1	99285	Emergency dept visit	1	604-Chest Pain	3-Medical Visit	1-Full Payment	0.6868	0.6868
2	G0378	Hospital observation per hr	16	450-Observation	4-Ancillary	1-Full Payment	1.4003	1.4003
3	71046	X-ray exam chest 2 views	1	471-Level I Conventional Radiology	4-Ancillary	4-Packaged	0.0929	0.0000
4	71275	Ct angiography chest	1	302-Computed Tomographic Angiography	24-Radiology	1-Full Payment	0.6545	0.6545
5	96365	Ther/proph/diag iv inf init	1	111-Pharmacotherapy Except by Extended Infusion	25-Diag/Ther	1-Full Payment	0.4837	0.4837
6	36415	Routine venipuncture	1	304-Minor Specimen Collection Services	4-Ancillary	4-Packaged	0.0038	0.0000
7	80061	Lipid panel	1	403-Organ or Disease Oriented Panel	4-Ancillary	4-Packaged	0.0134	0.0000
8	84484	Assay of troponin quant	1	400-Level I Chemistry Tests	4-Ancillary	4-Packaged	0.0175	0.0000
9	93005	Electrocardiogram tracing	1	413-Cardiogram	4-Ancillary	4-Packaged	0.0437	0.0000
10	J3475	Inj magnesium sulfate	1	496-Minor Pharmacotherapy	6-Drugs	4-Packaged	0.0000	0.0000
11	**Visit total**							**3.2253**
12	**Visit payment using example EAPG base rate of $500 (base rate chosen by payer)**							**$1,612.65**

Notes

1. The example is for illustration and may not be clinically complete. Relative weights are EAPG v3.17 effective January 2022.
2. EAPG users have flexibility in setting packaging options.
3. A medical EAPG encounter assigns a medical EAPG to the visit line based on the principal diagnosis.
4. Observation is provided as a separate payment as it meets the grouper default of 8+ hours in observation.
5. Payment for observation is based on an average considering 8 - 23 hours in observation.
6. EAPG 496 for minor pharmacotherapy is always packaged by default and has no relative weight created.

Value add:

Analysis: EAPGs enable comparison and insight into utilization, cost, and payment for ambulatory care

- **Case Mix:** EAPG weights indicate relative resource use of various services (OP CMI)
- **Categories:** Each EAPG is assigned to one of approximately 60 EAPG Categories

  Procedures: musculoskeletal, respiratory, cardiovascular etc.

  Medical visits: respiratory, circulatory, digestive etc.
- **Service Lines:** Each EAPG is assigned to one of approximately 50 Service Lines

  Service line assignments aligned with APR DRG service line assignments

  Enables integrated inpatient/outpatient analysis of utilization, payment, and cost

    Examples: cardiology, interventional cardiology, urology, urological surgery

What's next for EAPGs?

Version 4.0

Alignment between 3M methodology classifications	• Alignment with APR DRGs:
	  • diagnosis-based medical groups
	  • procedural-based groups and surgical hierarchy
	• Complex ED/Observation EAPGs in diagnostic categories
	• Improved Overall Visit Type Hierarchy

Improved Bundling Efficiencies	• Drug administration services with other Significant Procedure types • Enhanced options for processing grouper functions across claim dates • Enhanced claim date options for processing recurring services
Increased Analytical Functionality	• Provide single EAPG per claim record for Quality Reporting purposes (not payment) • Definition of Site of Service per claim or batch processing
Improved Operability of Grouper Options	• Provide more meaningful grouper output regarding the impact of using the options for claim payment

References and resources for EAPGs

EAPG marketing assets:

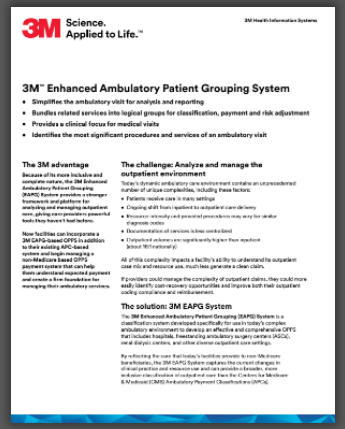
- Fact Sheet: 3M™ Enhanced Ambulatory Patient Grouping System
- eGuide: EAPG – Designed for todays complex ambulatory environment

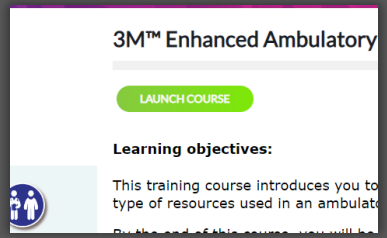
EAPG thought leadership on *Inside Angle*:

- Has your state or payer adopted EAPGs? Understanding the basics
- Payment and quality reform for mental health and substance abuse care: The time is now
- EAPG users: Get a little help from your friends

EAPG Other Resources:

- 3M HIS HealthCareAcademy





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For More Information

800-367-2447 (8 am – 5 pm mountain standard time)

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