Pediatric Sedation Dollars and $ense Workshop
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Jason Reynolds, M.D.

Financial Disclosures

We have no relevant financial disclosures.
Topic Outline

1. Business Plan Development
2. Pediatric Procedural Sedation Billing
3. Organization of a Pediatric Procedural Sedation Service
4. Promoting and Marketing for Sedation Services
5. Question and Answer Session
Business Plan Development

• What is a business plan?
• Why do I need one?
• How do I create and nurture it?

What is a Business Plan?

• Organizes your thoughts and goals to promote success.
• A roadmap for your organization that outlines goals and details how you plan to achieve those goals.
• Tool to communicate your service concept
  • Secure buy-in from stakeholders
  • Secure financing (i.e. $$$$$)
  • Solicit perspective and feedback
• Anticipate challenges over time
Does Business Planning Make a Difference?

• “. . . ventures with business plans grew faster than those without written plans.”
• “. . . business plans help raise entrepreneurial capabilities and, thereby, enhance performance.”
• “. . . business plans are particularly helpful at increasing the growth performance of apparently lesser able entrepreneurs and for ventures launching a new product or service.”
• “a written business plan may actually support improvisational activities”

Components of the Business Plan

• Business Description
• Market Analysis
• Marketing Plan
• Operating Plan
• Financial Plan
• Executive Summary

Adapted from Drs. Banks & Werner, Pediatric Emergency Medicine Associates, LLC, Atlanta, GA
Business Description

- The Introduction
  - Service goals and plans
  - The need for the service
- Mission Statement
  - Purpose of the service
  - Function of the service
  - Principles of the service
- Business Overview
  - History
  - Organizational structure
  - Brief description of proposed service(s)

Market Analysis

- Identify your stakeholders
  - Patients (and their families)
  - Proceduralists
  - Referring providers (PCPs, subspecialists)
  - Others
- Strategy to capture these clients
- Market characteristics
  - Patient characteristics
  - Facility characteristics
  - Growth potential
- Competitors
  - Direct & indirect
  - Analysis of your competitors’ strengths/weaknesses
Marketing Plan

• Description of services (in detail)
• Pricing
  • Projected expenses and income
  • Fee schedule
  • Negotiation with third-party payors
• Distribution
  • How will the service(s) be delivered
  • Scheduling/throughput/billing
• Promotion
  • Targeted at individual/groups of stakeholders
  • Budget & timeline

Operating Plan

• Ownership & management
  • Structure type and relationship to facility
  • Management and key personnel
  • Organizational chart
• Resources & production
  • Providers (physicians/APNs/RNs)
  • Recruitment/credentialing/training
  • Facilities & equipment
  • Patient flow process
  • Compliance/regulatory/legal issues
• Support staff roles
  • Providers (physicians/APNs/RNs)
  • Schedulers/billing & collections
  • Reimbursement & benefits
Financial Plan

• Projection of the viability of the service
  • Need solid research and data
  • Critical decision making
• Financial projections (up to 3 years)
  • Monthly revenues
  • Monthly expenses
  • Startup capital
  • Cash flow
• Estimations of inherent value
  • Patient benefits
  • Facility benefits
  • Providers benefits

Executive Summary

• The last written component of the business plan
• But the opening page of the plan
• Contents
  • Mission and goals
  • The market
  • Marketing plan
  • Organization & team structure
  • Key operational elements
  • Financials
  • Value of the service
Summary – Components of the Business Plan

- Business Description
- Market Analysis
- Marketing Plan
- Operating Plan
- Financial Plan
- Executive Summary

A well thought-out and written business plan can decrease a lot of anxiety and heartache over the coming months and ensure a higher rate of success and satisfaction.
Procedural Sedation Billing

• Why is this important?
• Facility services billing
• Professional services billing
  • Anatomy of an anesthesia (MAC) bill

Why is this important?

• As discussed in the business plan:
  • Any ongoing business or service needs revenue to continue operating, even if it is a governmental or a nonprofit organization or a PHM division
  • One has to place some “value” to a service in order for it to be recognized by others.
  • Demonstrates to patients and insurers that sedation service is a legitimate and vital medical service
  • “RVU credit” for providers
  • If not on the budget, the service WILL NOT exist!
Two Fees Associated With a PPSS

- Facility fees
  - What the hospital bills for the physical space, equipment, supplies, services, and personnel (nursing)
- Professional provider fees
  - What the provider (or parent organization) bills for their direct patient care service(s)

Facility Fee Billing

- Dependent upon your state regulations, the Medicaid program, and third-party payors
- Potential billing opportunities
  - The diagnostic study (technical component)
  - “Facility charge”
    - Pre-procedure services
    - Procedure (except physician services)
    - Recovery services
    - Supplies
- Consult with your facility’s finance department
Professional Services Billing

• Depends upon:
  • The intended depth of sedation
  • Location of the service
  • The provider of the service
  • Level of billing available to the physician
  • Part of Evaluation & Management (E&M) care
  • Consultation
  • Moderate Sedation
  • Monitored Anesthesia Care (MAC)

Part of E&M Care

• Anxiolysis is included in the visit E&M code
• Sedation is considered part of the critical care codes (whether hourly or global daily code)
• Many payors will not pay the same provider for both an E&M code and Anesthesia code on the same calendar day
Consultation

- Requires the elements of:
  - Request to either recommend care for a specific condition or problem, OR, to determine whether to accept responsibility for ongoing management of the patient
  - Report back to the referring source
- Outpatient consultation
  - 99241, 99242, 99243, 99244, 99245
- Inpatient consultation
  - 99251, 99252, 99253, 99254, 99255

Consultation

- Clinical Examples
  - VCUG Patient
    - Assessment of patient for suitability of sedation
    - Provide recommendations for inhaled nitrous oxide and/or midazolam
  - MRI Patient
    - Assess if patient does require sedation or could have the diagnostic procedure performed with a distraction technique (child life, goggles)
    - Provide recommendation and report in the EMR
    - Remain available to provide sedation if needed

CPT Professional Edition, American Medical Association
Moderate Sedation

• Definition
  • A drug-induced depression of consciousness during which patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation. No airway, ventilatory, or cardiovascular support is required.

• Included services
  • Pre-procedure assessment
  • Drug administration and monitoring
  • Recovery

CPT Professional Edition, American Medical Association

Moderate Sedation

• Intra-service time starts with the administration of the agents, requires face-to-face attendance, and ends at the conclusion of personal contact by the physician providing the service.

• CPT codes:
  • Same physician (for procedure & sedation)
    • 99143 – age < 5 y/o, 1st 30 minutes
    • 99144 – age ≥ 5 y/o, 1st 30 minutes
    • 99145 – each subsequent 15 minutes
  • Different physician
    • 99148 – age < 5 y/o, 1st 30 minutes
    • 99149 – age > 5 y/o, 1st 30 minutes
    • 99150 – each subsequent 15 minutes

CPT Professional Edition, American Medical Association
Moderate Sedation

• Caveats
  • Often many state Medicaid programs and third party payors assign a RVU of 0 to the code (i.e. no recognition & no payment)
  • When there is recognition of the code, the payment is often low
  • For many procedures, moderate sedation services are considered to be part of the procedure and the fee payment.

Monitored Anesthesia Care (MAC)

• Anesthesia CPT Codes 00100 thru 01999
• Include pre/intra/post anesthesia care
• Three components to an anesthesia code
  • Base
  • Time
  • Modifiers


**Anesthesia Base Units**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>CPT Code</th>
<th>Base A-RVU</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI, CT, Echo</td>
<td>01922</td>
<td>7</td>
</tr>
<tr>
<td>Bone Marrow Asp/Bx</td>
<td>01112</td>
<td>5</td>
</tr>
<tr>
<td>LP, IT Chemotherapy</td>
<td>00635</td>
<td>4</td>
</tr>
<tr>
<td>Renal Biopsy</td>
<td>00860</td>
<td>6</td>
</tr>
<tr>
<td>Liver Biopsy</td>
<td>00702</td>
<td>4</td>
</tr>
<tr>
<td>I&amp;D Leg Abscess</td>
<td>00400</td>
<td>3</td>
</tr>
</tbody>
</table>

**Monitored Anesthesia Care (MAC)**
Anesthesia Time Units

The currency is 15 minute blocks. Some billing programs will report incremental time.

<table>
<thead>
<tr>
<th>Time</th>
<th>Time Units</th>
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<tbody>
<tr>
<td>15 minutes</td>
<td>1</td>
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<td>30 minutes</td>
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<tr>
<td>45 minutes</td>
<td>3</td>
</tr>
<tr>
<td>60 minutes</td>
<td>4</td>
</tr>
<tr>
<td>75 minutes</td>
<td>5</td>
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</table>

Anesthesia Modifiers

- ASA Status
  - ASA 1 and 2: 0 units
  - ASA 3: 1 unit
  - ASA 4: 2 units
- Others
  - Patient age less than 1 y/o: +99100
  - Emergency condition: +99140
Examples

- 5 month old requires MRI Brain with sedation duration of 30 minutes & service provided by attending physician
  - Base of 7 + Time of 2 + Age Modifier
- 4 year old requires sedation for LP & IT chemotherapy and bone marrow aspirate; patient is newly diagnosed ALL and resolving sepsis episode; given ASA of 3 & requires 45 minutes of sedation time.
  - Base of 5 + Time of 3 + Modifier of 1 (for ASA)

Summary - Procedural Sedation Billing

- This is very important!
  - You need to be recognized for your services
    - By your organization
    - By insurance companies
    - By families
  - Your organization does not want (or need) to lose money, even if it is a "non-profit" organization.
  - Your salary will ultimately depend upon it.
Organization of a PPSS

Patricia D. Scherrer MD
Immediate Past President
Society for Pediatric Sedation
Factors that Affect Quality Outcomes
“It’s a team sport”

• Sedation physicians
• Sedation advanced practice providers
• Sedation nurses
• Child life specialists
• “Appropriate physiologic monitoring and continuous observation by personnel not directly involved with the procedure allow for accurate and rapid diagnosis and initiation of appropriate rescue interventions.”

Sedation providers

Impact of Provider Specialty on Pediatric Procedural Sedation Complication Rates

WHAT’S KNOWN ON THIS SUBJECT: Pediatric procedural sedation is provided by a variety of pediatric specialists. Low patient numbers, single-institution experience, and evaluation of single-specialty groups have limited previous reports on complications.

WHAT THIS STUDY ADDS: We used a large multi-institution procedural sedation database to compare the major complication rates among providers. We found that provider specialty did not affect major complication rates in our consortium of organized sedation systems.

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KEY WORDS: pediatric sedation, pediatric anesthesia, procedural sedation, patient safety


Sedation providers

- Core competencies
- 2008 PRIS study – 70% of hospitalists felt they needed additional training in sedation
  - On line or written modules
  - Simulation based training
  - Live mentored experiences
  - Airway training with anesthesiology
  - Local credentialing requirements
Sedation providers
• Didactics, syllabus and online
• Small group case discussions
• Airway workshop with pediatric anesthesiologists
• Simulation based training and testing
• Written testing
• Certificate of completion
• Physician, dentist, and nurse participants

Sedation nurses
• Core competencies
  • http://www2.pedsedation.org/sections/members/sedation_nurse_competencies.pdf?2013061211130
• Standards of care
  • http://www2.pedsedation.org/sections/members/sedation_nursing_soc.pdf?2013061211130
• Ideally spend >80% of FTE in sedation
Where to sedate Jamie?

Should I stay or should I go?

- Mobile versus centralized sedation unit
- Fully mobile
- Fully based in a centralized unit
- Most programs are hybrids
Mobile service

Centralized unit
Centralized unit
Centralized unit
Patients & procedures

• Screening tips
• Develop front line criteria for schedulers and nurses to use
• Perform physician(APP review of any questionable cases
• Scheduling tips
• Start with long slots and titrate down
• Batch cases in single locations
• Review slot utilization regularly
• Engage your schedulers into the value of their contribution!

Anesthesiology support

• After hours coverage
• Safety net and rescue
• Referral of unexpectedly complex patients
• Consultation – “what would you do with...”
• Airway training
• Oversight responsibilities
Putting it all together

Factors that Affect Quality Outcomes

- Patient
- Provider
- Procedure
- Environment

Process improvement

Continuous Improvement

Adjust
Plan
Study
Do

Standard

Process Quality

Standard
Quality dashboards

Kentucky Children's Hospital Pediatric Sedation Service Dashboard - 2011

<table>
<thead>
<tr>
<th>Month</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
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<tr>
<td>% Cancellation due to issue related to sedation (0)</td>
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<td>% Use of Benzodiazepines</td>
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<td>% Emergent anesthesia consult</td>
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<td>% On time first case start (within 10 minutes)</td>
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<td>@ M/next available (at least 1)</td>
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<td>% Refills within 24 hours</td>
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<td>Immobilizer success rate</td>
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<tr>
<td>% cases IV on first attempt (at)</td>
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<tr>
<td>% IV attempts % IM</td>
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<td>Would refer our service to others</td>
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<tr>
<td>Answered &quot;no&quot; to anything we could improve upon? %</td>
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<td>Procedures</td>
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<td>95</td>
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<td>162</td>
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<td>146</td>
<td>133</td>
<td>90</td>
<td>76</td>
<td>92</td>
</tr>
</tbody>
</table>

*Too many IV attempts (2), wanted to stay with child through (5), would have preferred inhaled agent (2), would have preferred no IV (2)

*To be able to complete scan or refer to SAU in time, more child friendly, sent to wrong area

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QUALITY & SAFETY DASHBOARD

Pediatric Sedation Excellence Program

**System-Wide Measures**

- PSQI Database Utilization
  - PGU, FEEDS, BUN unit, NASSC, and PATST
  - Currently, only PGU participating

- End tidal CO2 Monitoring
  - Policy on complete audits of PGU, FEEDS, BUN, NASSC, and PATST (separate document)

**Calendar Days Between Sedation-related PRRT Calls**

- Pediatric Rapid Response Team

**Pediatric Sedation Program History**

- 06/24/08: Initiation of Pediatric Rapid Response System
- 02/07/07: Recommendations of Pediatric Sedation Task Force to MSQC & implementation of Pediatric Sedation Committee
- 03/07: Mentor Director of Pediatric Sedation Service Appointed
- 01/2013: Pediatric Sedation Service Launched - P Only
- 04/2013: Pediatric Sedation Service Launched - P & O
- 06/2013: Pediatric Sedation Policy Effective Date
- 07/01/2013: Formation of Pediatric Sedation Committee

Program sponsored by UPSC/Donnie Dumas
Partnering with Patients & Families

Patient and Family Involvement

We currently have several family advisors participating in the Pediatric Sedation Excellence program. Each are family members of children who received diagnostic procedure-related sedations at the NC Children’s Hospital. Additional patients and families are welcomed to join.

Magnetic Resonance Imaging (MRI)

MRI Compatible Goggles

In April 2012, the MRI department began using the CinemaVision virtual reality system to help reduce patient stress and anxiety. Made possible by a grant from UNC Dance Marathon, these goggles allow patients to watch a movie and/or listen to music while undergoing an MRI scan. They are especially helpful for pediatric patients who might otherwise require sedation to stay still and complete the scan.

IOM’s Six Aims for Improving Health Care Quality

<table>
<thead>
<tr>
<th>Aim</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Safe care</td>
<td>Avoiding injuries to patients</td>
</tr>
<tr>
<td>2. Effective care</td>
<td>Providing cared based in scientific knowledge</td>
</tr>
<tr>
<td>3. Patient-centered care</td>
<td>Providing respectful and responsive care that ensure that patients values guide clinical decisions</td>
</tr>
<tr>
<td>4. Timely care</td>
<td>Reducing waits for both recipients and providers of care</td>
</tr>
<tr>
<td>5. Efficient care</td>
<td>Avoiding waste</td>
</tr>
<tr>
<td>6. Equitable care</td>
<td>Ensuring that the quality of care does not vary because characteristics such as gender, ethnicity, socioeconomic status, or geographic location.</td>
</tr>
</tbody>
</table>
Great Expectations—Defining Quality in Pediatric Sedation: Outcomes of a Multidisciplinary Consensus Conference

J. Michael Canuors, Joseph P. Cravero, Susanne Kent, Deb LaViolette, Lisa Lourie, Patricia D. Scherrer

- Pediatric Sedation Service Center of Excellence
Promoting & Marketing of a PPPS

• Defining stakeholders & garnering their support
• Defining potential business & patient opportunities
• Creating marketing opportunities

What is a Stakeholder?

• Definition:
  • A person or organization that is actively involved in the project or service, or that is positively or negatively impacted by it.
What is a Key Stakeholder?

- Definition:
  - Any person who determines the success or failure of the project or service.
- Attributes: DANCE
  - Decisions – control/influence the budget
  - Authority – provide permission
  - Need – directly benefited or impacted
  - Connections – can remove roadblocks or exert influence
  - Energy – positive/negative energy

How Do I Get Support from Key Stakeholder?

- Interview them (Question Funnel)
  - Gather general information
  - Gather specific information
  - Gather measures of success
  - Closed Yes/No responses
- Establish & maintain regular communication
What Are My Service Or Business Opportunities?

- Based upon your capabilities and the needs of the market
- Refers back to your market analysis
- Capabilities
  - Manpower
  - Talents
  - Facilities
- Define your market
  - May be just your organization or far beyond
  - Unfilled niches

How Do I Market My Service?

- Target stakeholders
- Provide great service
- One-on-one meetings
- Small group meetings
- Community events
  - Medical community
  - Lay community
- Organizational newsletters and brochures
- Social media
1. Business Plan Development
2. Procedural Sedation Billing
3. Organization of a Pediatric Procedural Sedation Service
4. Promoting and Marketing for Sedation Services
5. Question and Answer Session

Questions & Answers
Thank you