Pharmacy 483
Outcomes & Cost Management in Pharmacy Practice

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Health Care Cost Over Time

<table>
<thead>
<tr>
<th>Years (1999-2003)</th>
<th>Hospital</th>
<th>Physician</th>
<th>Medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>5.0</td>
<td>10.0</td>
<td>15.0</td>
</tr>
<tr>
<td>5.0</td>
<td>10.0</td>
<td>15.0</td>
<td>20.0</td>
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<tr>
<td>10.0</td>
<td>15.0</td>
<td>20.0</td>
<td>25.0</td>
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<tr>
<td>15.0</td>
<td>20.0</td>
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</tr>
<tr>
<td>20.0</td>
<td>25.0</td>
<td>30.0</td>
<td>35.0</td>
</tr>
</tbody>
</table>

Factors Contributing to Increasing Medication Costs

Relative Contributions to Rising Medication Costs 1997-2002

www.cms.gov.statistics

Trends and Indicators in Changing Health Care Marketplace, 2004 Update
What is My Role?

Clinical Pharmacists

Outcomes & Cost Management

Formulary Management

Providers (RN, MD, etc)

What is a Formulary Management?

- List of Drugs Which May Routinely Be Used
  Developed by the P&T Committee based on:
  ✓ Efficacy
  ✓ Safety
  ✓ Cost Effectiveness
  ✓ Therapeutic Equivalency
  ✓ Treatment Guidelines

How Can Formulary Management Optimize Outcomes & Costs?

- Standardization of Care
- Appropriate Utilization
- Improved Safety
- Less Potential for Errors
- Bulk Purchasing
- Contract Pricing
Financial Impact: Total Cost

TOTAL COST
Drug Acquisition Cost
Administration Costs
Monitoring Costs
Cost of Adverse Effects

Financial Impact: Reimbursement

REIMBURSEMENT
Ambulatory Clinic Administered
Ambulatory Take Home
Hospital

Financial Impact: Profit Margin

Reimbursement − Total Cost
= Profit Margin
Financial Impact of Avastin:
Acquisition Cost

Monoclonal antibody - inhibits tumor vascularization
Approved for 1st line therapy of metastatic Colorectal CA

$4400
Each patient
for a month

20 patients
Per month

$1,056,000
Annually

Financial Impact Avastin:
Reimbursement for Clinic Administered

Prior Authorization

Medicare/Medicaid 106% of ASP
Regence Fee Schedule
Premera % of Charges
Molina % of Charges

Avastin Conclusions of Financial Impact:

Clinic
Positive Impact If:
1. Prior Authorization Received
2. Billed/Coded Correctly

Hospital
Negative Impact
No additional Reimbursement over that received for the DRG
Avastin: Formulary Management

Add to UW Medicine Formulary:
- Restrict to Outpatient Use
- Provider Must Obtain Prior Authorization from Patient’s Insurance
- Any Inpatient Use will Require Medical Director’s Approval

5 HT3 Antagonists: Background

1. Chemotherapy Induced Nausea/Vomiting
2. Post Operative Nausea/Vomiting
3. Radiation Induced Nausea/Vomiting
4. Other/Miscellaneous

2 million annually (2001)

5HT3 Antagonist Process

Establish Therapeutic Equivalence
Negotiate Acquisition Cost
Evaluation of Utilization Patterns
Evaluation of Reimbursement
Evaluation of Utilization Patterns

Chemotherapy  Radiation

Post Op  Other/Misc

1. Dosing Regimens
2. Duration of Therapy
3. Location of Therapy
   Ambulatory (Clinic vs. Self)
   Hospital

Evaluation of Reimbursement

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Ambulatory</th>
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<tbody>
<tr>
<td>DRG</td>
<td>Self Administered</td>
</tr>
<tr>
<td>Case Rate</td>
<td>Clinic Administered</td>
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<tr>
<td>Indigent</td>
<td>Cash</td>
</tr>
<tr>
<td></td>
<td>Medicaid</td>
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</table>

Develop Treatment Guidelines: CIN

Emetogenic Potential
- Minimal (<10% Frequency)
- Low (10-30% Frequency)
- Moderate (30-60% Frequency)
- High (60-100% Frequency)
**5HT3 Implementation**

**Pharmacy & Therapeutic Committee**
Ondansetron Designated Sole Formulary 5HT3

Approval of CIN Treatment Guidelines

Automatic Substitution by Pharmacy
  - Based on CIN treatment guidelines
  - Based on equivalent dosing for other indications

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**5HT3 Results**

Normalized for Patient Numbers

![Chart]

Volume Adjusted Cost Savings = $530,000

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2003</th>
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</thead>
<tbody>
<tr>
<td>UWM</td>
<td>$100</td>
<td>$200</td>
</tr>
<tr>
<td>SCCA</td>
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<td>$400</td>
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<tr>
<td>HMC</td>
<td>$500</td>
<td>$600</td>
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</tbody>
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**Changes in 5HT3 Therapy in 2004:**

Medicare Reimbursement
Palonosetron

1. Stay with Ondansetron
2. Revise CINV treatment guidelines to address Palonosetron

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| CONCLUSION |
| In a nutshell what is it that I do? |

1. Determine Financial Impact of Therapies
   - Cost of Therapy
   - Utilization
   - Reimbursement

2. Strategies to Improve Financial Impact
   - Treatment Guidelines
   - Restrictions on Utilization
   - Maximize Reimbursement
   - Cost Saving Initiatives