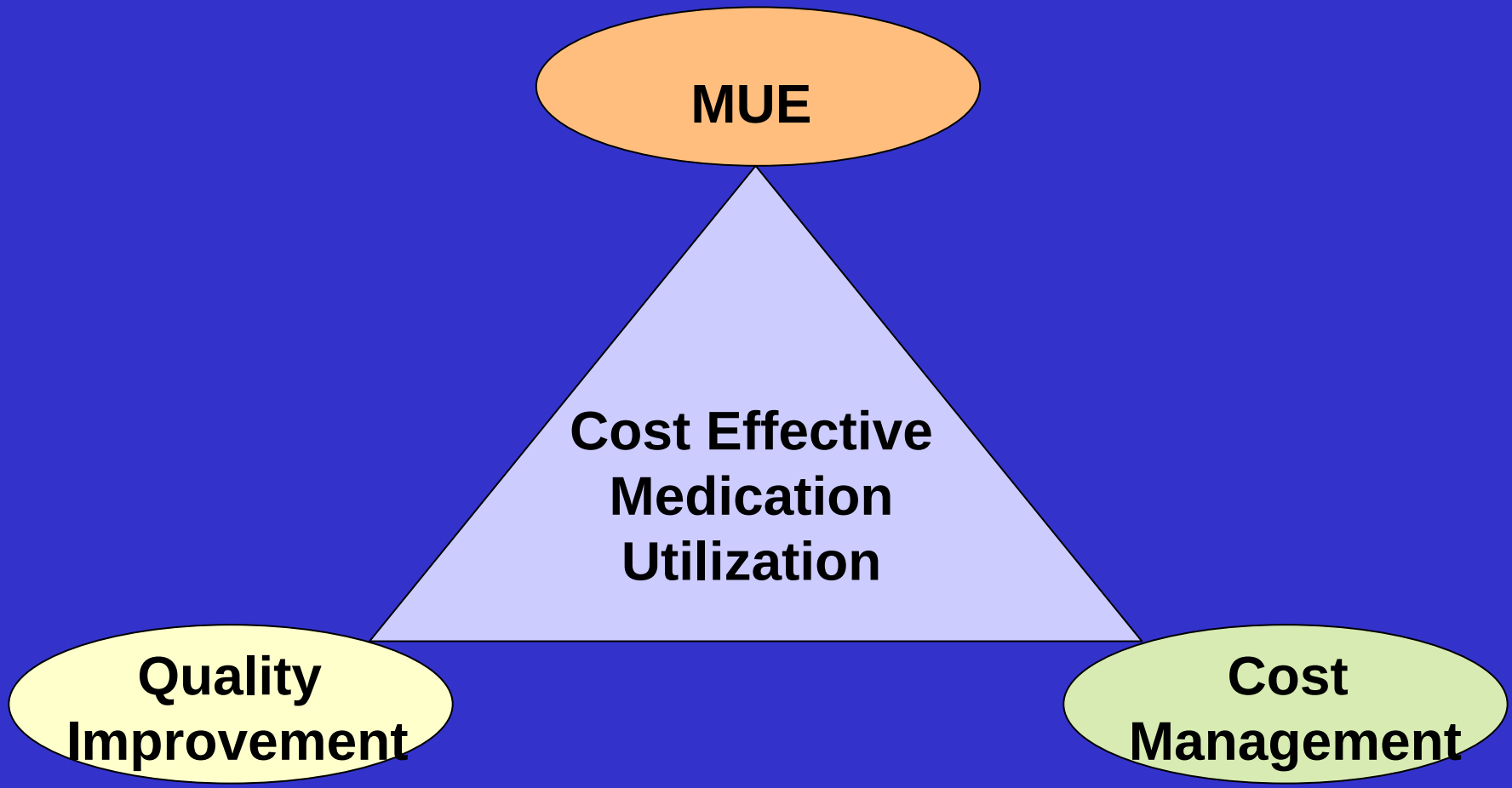
Pharmacy 483



February 14, 2006

Janet Kelly, Pharm.D.

- Outcomes & Cost Management UWMC
- Provide pharmacy leadership for medication related outcomes
  - Pharmacy & Therapeutics
  - Treatment guidelines/criteria for use

Steve Riddle

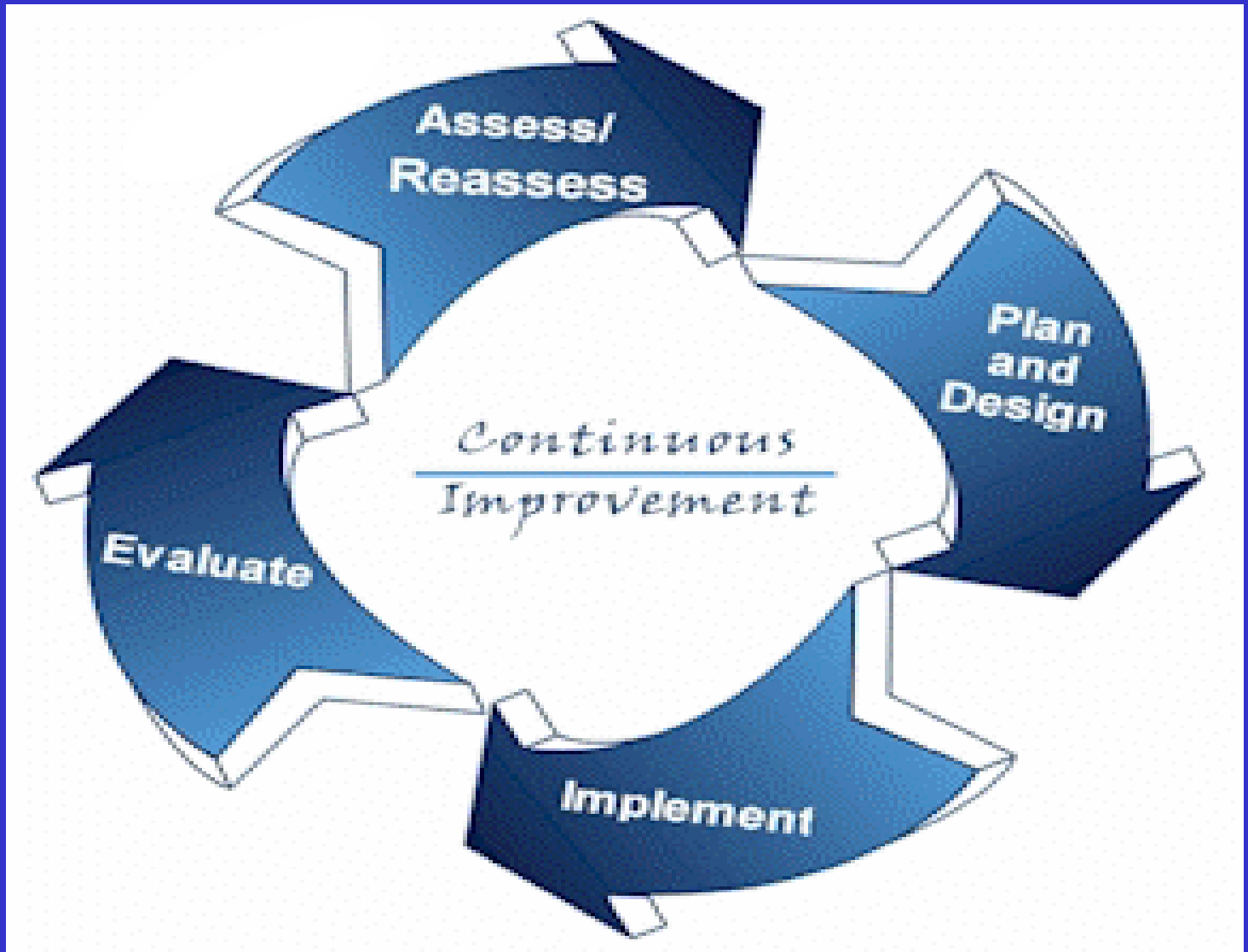
- Quality Improvement and Medication Utilization Lead

  "Right drug for the right patient every time"
- Work with administration and clinical staff (physicians, pharmacists) to develop care processes for specific conditions and/or medications.
- Examples: ACE inhibitors in myocardial infarction and heart failure; use of most cost-effective agents in depression; treatment of chronic pain

Goals of the Presentation

- Understand the basics of continuous quality improvement (CQI) and how it is used to achieve optimal patient outcomes.
- Understand the role of Medication Utilization Evaluation (MUE) in the CQI process.
- Understand the basics of cost effectiveness evaluations.

Continuous Quality Improvement



Key Terms

Medication Utilization Evaluation

- Retrospective/Prospective
- Is utilization of the drug appropriate?
  - compared to goals

    (criteria for use and/or treatment guidelines
- Provides necessary data for CQI process

Key Terms

Formulary

- List of Drugs Which May Be Prescribed
- Developed by the P&T Committee based on:
  - ✓ Safety
  - ✓ Efficacy
  - ✓ Cost Effectiveness

Key Terms

Cost Effective Therapy

- Least expensive therapy which provides the desired outcome
  - ✓ Medication Cost
  - ✓ Monitoring Costs (labs/ office visits/etc)
  - ✓ Adverse Effect Costs
- Very slippery concept – difficult to quantify
  - ✓ Convenience
  - ✓ Individual Patient Preference

Cost Effective Calculation

Lexus ES 330

Initial Cost $35,000
26 mpg

Hyundai Sonata V6

Initial Cost $21,000
24 mpg

Cost effectiveness evaluation must also include:

Maintenance Cost

Life Span of the Car

Cost Effective Calculation (Cont)

Lexus ES 330

Life span = 150,000 miles
Maintenance cost = $0.3 per mile

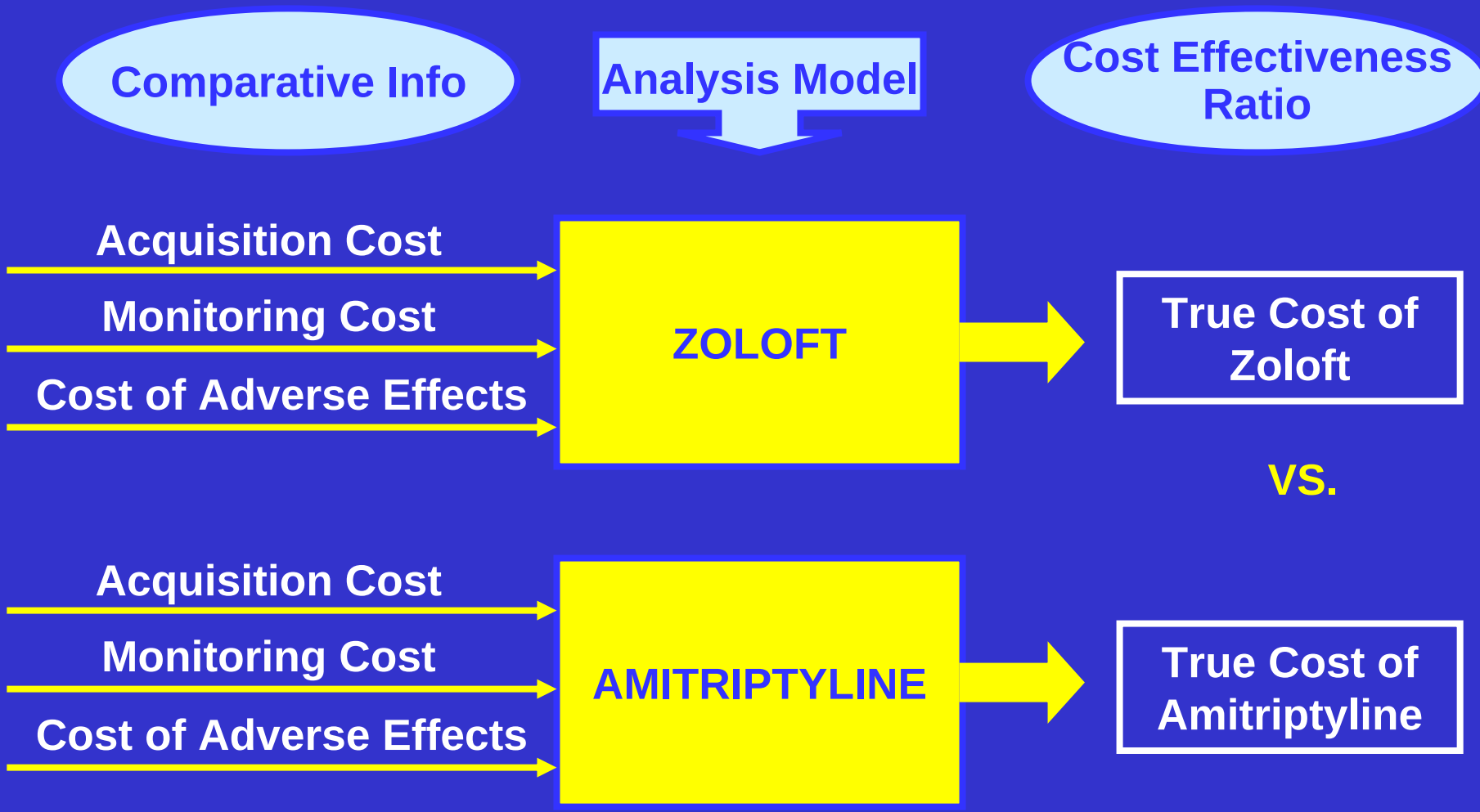
Total Cost = $91,538
Cost per mile = $0.61

Hyundai Sonata V6

Life span = 96,000 miles
Maintenance cost = $0.26 per mile

Total Cost = $53,960
Cost per mile = $0.56

Antidepressant Cost Effectiveness Comparison



Evaluation of IVIG Utilization

- What is IVIG?
  - Intravenous preparation of immune globulins (antibodies) derived from pool plasma
- What is it used to treat?
  - Only 5 FDA indications
  - Dozens of off-label indications

    (many with little or no data to support use)
- Why evaluate?
  - Limited resource
  - Safety Issues
  - Cost (2 million per year)

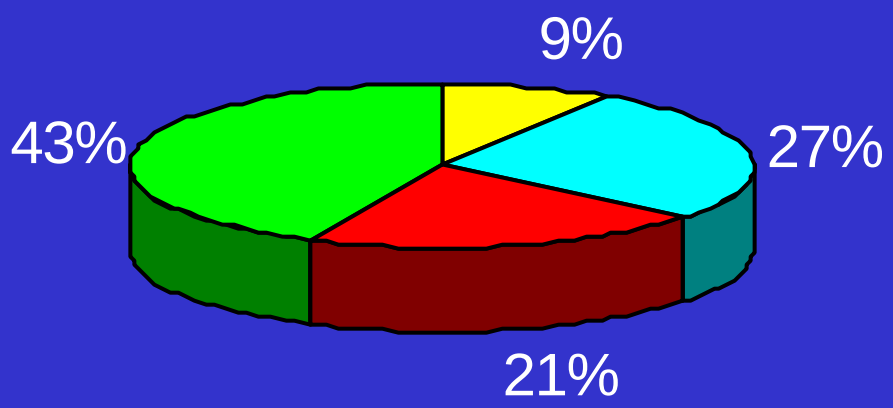
IVIG MUE Criteria

Reviewed charts for all patients that received IVIG at UWMC/HMC for a 2 month period

- Indication for IVIG
- Dose of IVIG given
- Duration of IVIG therapy
- Prescribing Service
- Adverse Effects Attributed to IVIG

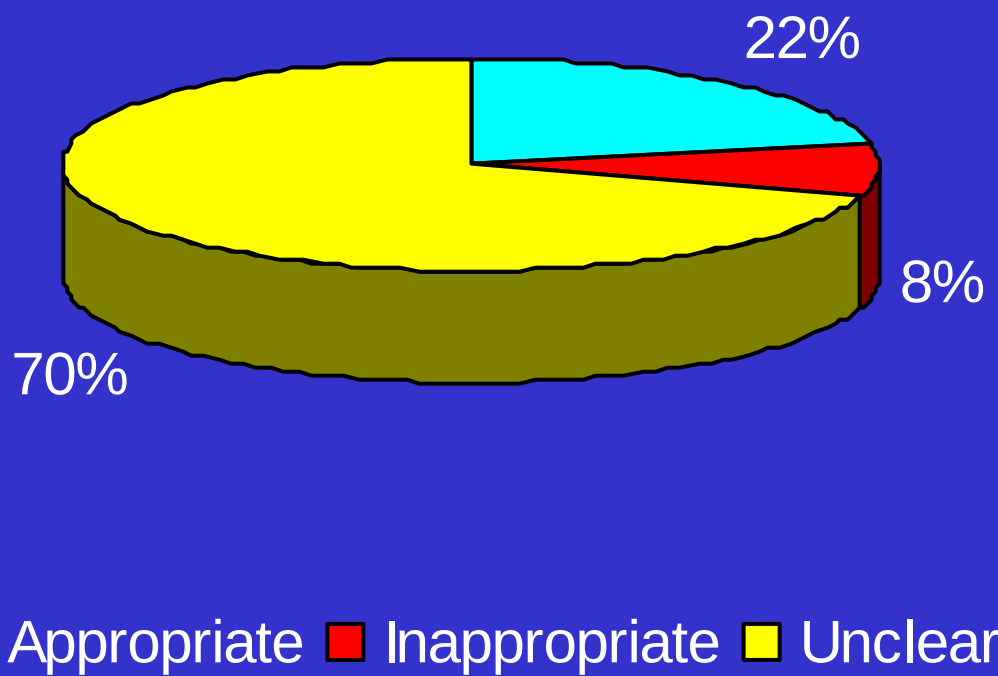
Results

Indications for IVIG



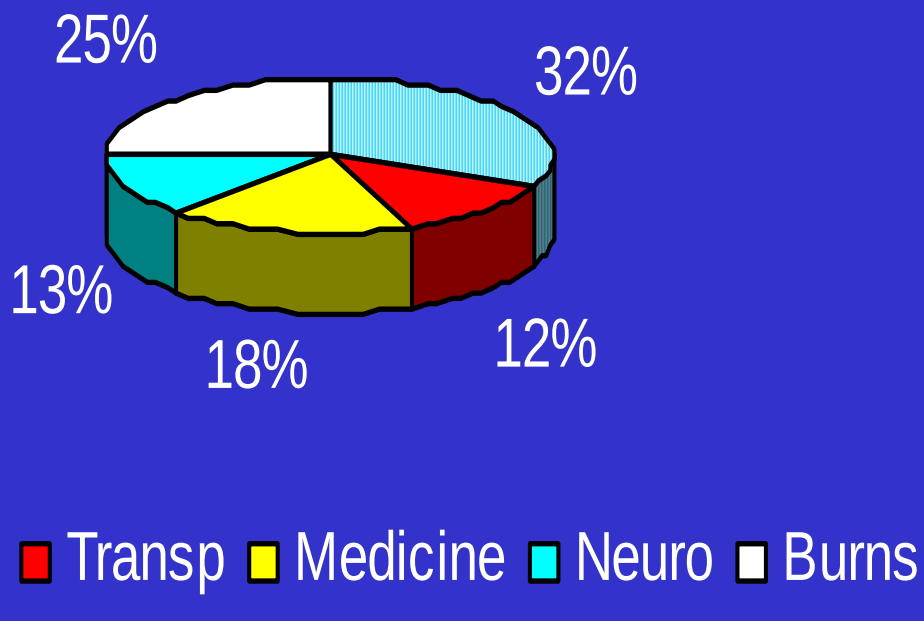
Results

Dosing Regimen of IVIG



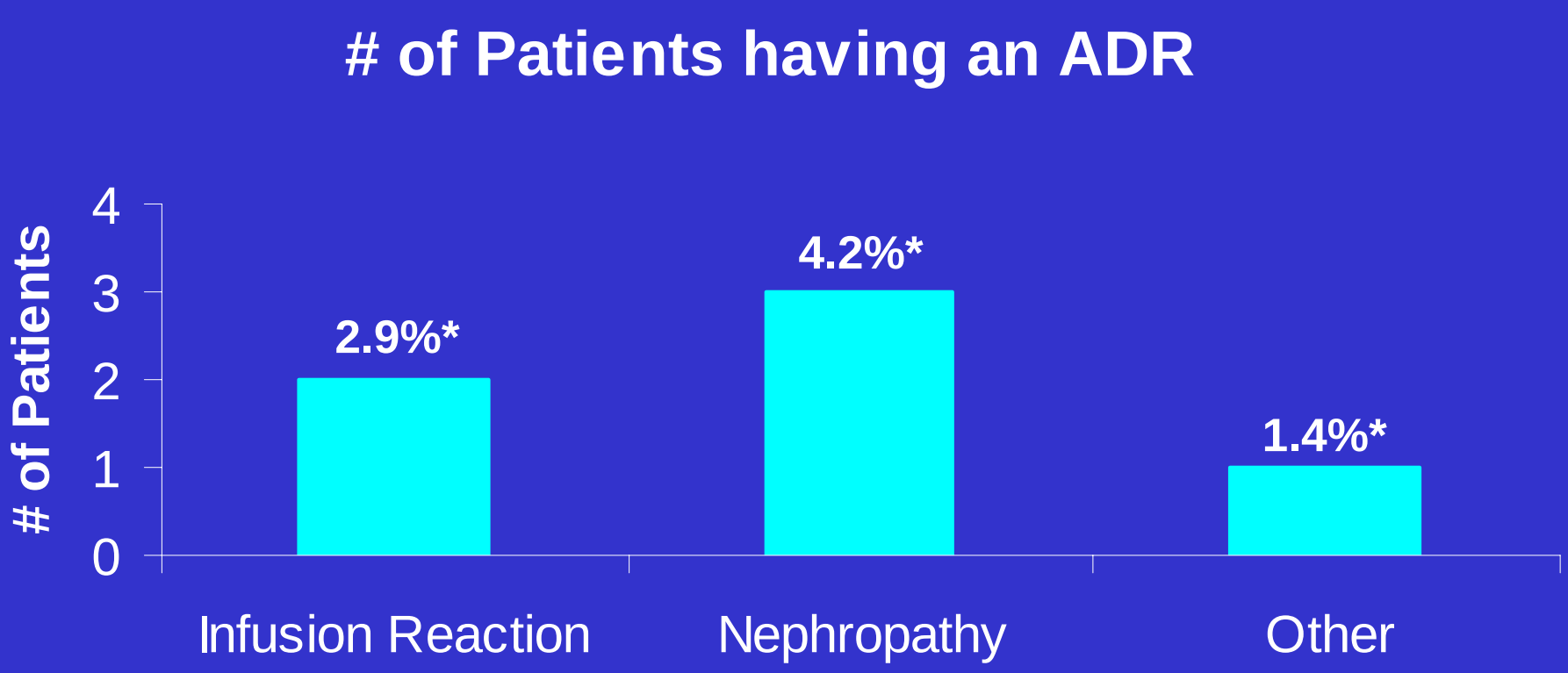
IVIG Prescribing Service

% of Total IVIG Cost



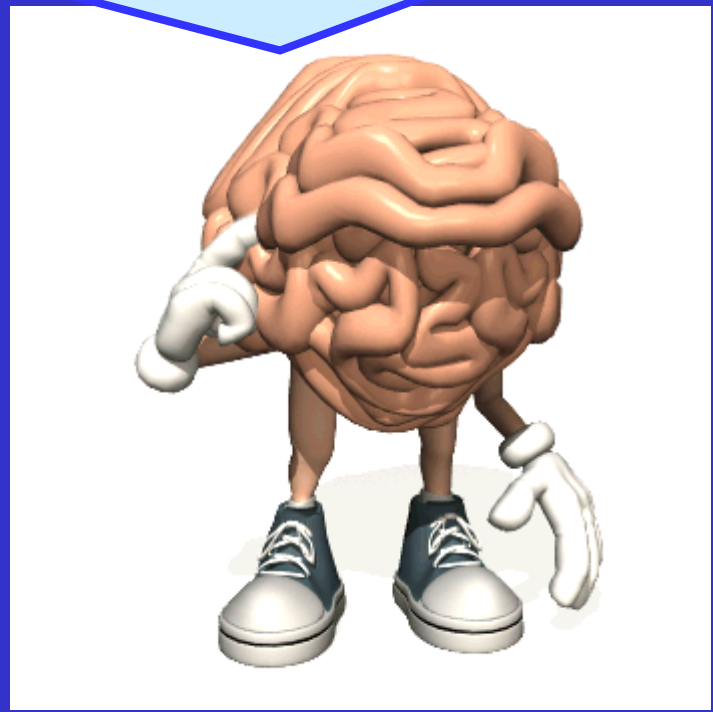
Results

Adverse Effects



*** % of all patients treated with IVIG during the study period (n=70)**

Assess the Results



We have a problem!

Plan & Design

Multidisciplinary Task Force

Goals

- Need to know what IVIG is being prescribed for
  - in 43 % of patients it was unclear
  - Who are the primary prescribers?
- Provide education for prescribers regarding:
  - Appropriate indications
  - Appropriate dosing
  - Product selection

Plan for Accomplishing Goals

- Addition of a sucrose free IVIG product to formulary
  - Sucrose is associated with nephropathy
  - Guidelines for who should receive
- Development of an IVIG order form
  - Check boxes for indications
  - Dosing recommendations
  - Product selection
  - Administration/Monitoring
  - Premedications

IVIG Order Form

I. Select Diagnosis/Indication for IVIG

- ❑ FDA Indications (with dosing recommendations)
- ❑ Off Label Indications (with dosing recommendations)

II. Select IVIG Product

- ❑ Standard Product
- ❑ Sucrose Free Product

III. Indicate Dose & Frequency

Give _____grams of IVIG (Select Product Above) every _____(specify frequency) for a total of doses _____(specify # of doses to be given).

Implementation of IVIG Order Form

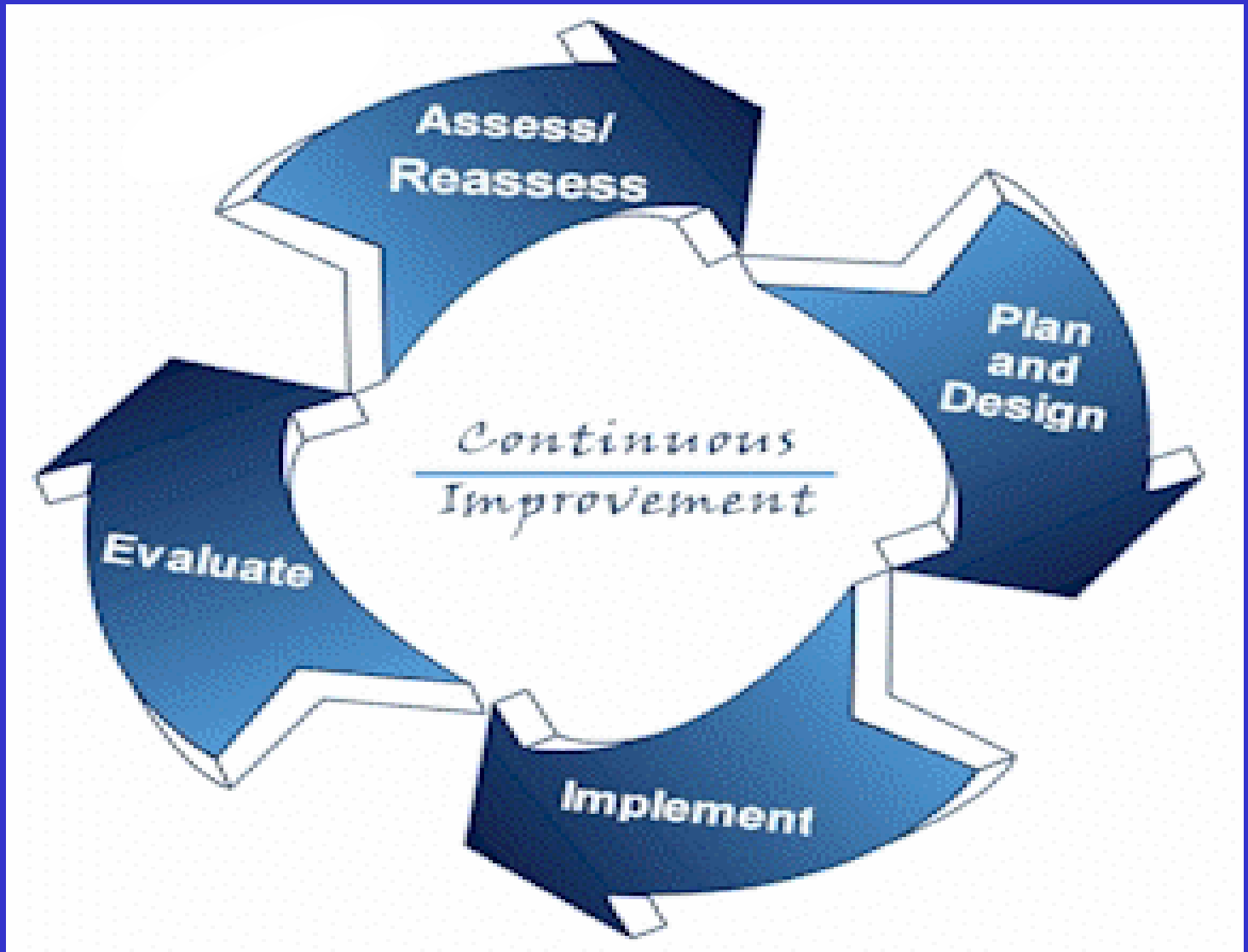
- Approval of P&T Committee
- Forms Committee Approval
- Printing & Distributing
- Education
  - Pharmacist Education
  - Physician Education
  - Nursing Education

Re-evaluate

Prospective MUE using order forms

- Tabulate results in 3-6 months
  - Did the form improve utilization of IVIG?
- Look at incidence of ADR
  - Did adding sucrose free product decrease incidence of nephropathy?
  - Was it cost effective?

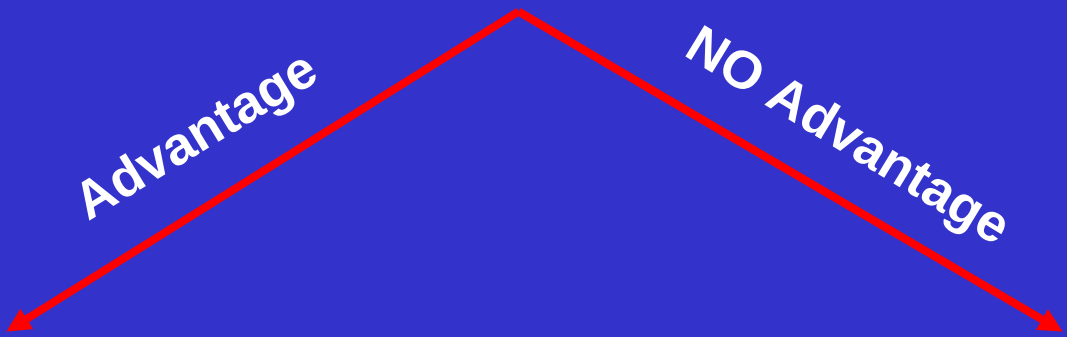
Repeat the Cycle



Formulary and Financial Impact Evaluation

Weighted Evaluation of:

- ✓ Safety
- ✓ Efficacy
- ✓ Financial Impact



Add to formulary

Do NOT Add to formulary

Pregabalin (Lyrica^{R})

- Structural analog of GABA
  - GABA is an inhibitory neurotransmitter
  - Similar to Gabapentin (Neurontin^{R})
- Indications
  - Partial Seizures
  - Neuropathic Pain
- Therapeutic Advantage?
  - Safety
  - Efficacy

Steps in an Financial Impact Evaluation

1. Determination of Total Cost
2. Determination of Reimbursement
3. Calculation of Potential Revenue

Financial Impact Evaluation

Cost Effectiveness

Financial Impact Evaluation
Pregabalin vs. Gabapentin

Determination of Costs:

Drug Acquisition

Monitoring, ADRS, & Convenience

Drug Administration Cost
Clinic vs. Self Administered

Financial Impact Evaluation
Pregabalin vs. Gabapentin

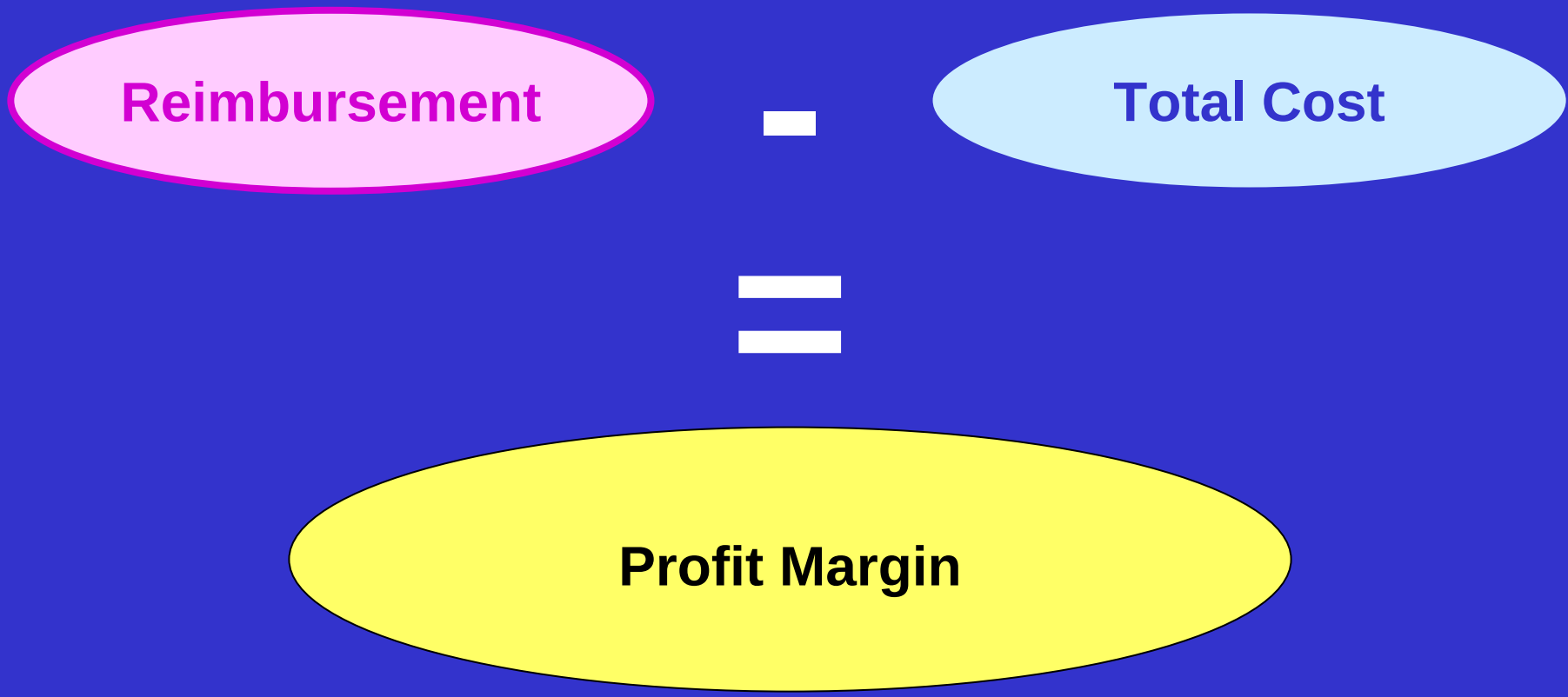
Determination of Reimbursement:

HOSPITAL	AMBULATORY
• DRG or Capped Reimbursement	• Insurance Mix (DSHS/Medicaid, Medicare, Private, Indigent) • Insurer Formularies • Patient Responsibilty (co-pays)

Financial Impact Evaluation

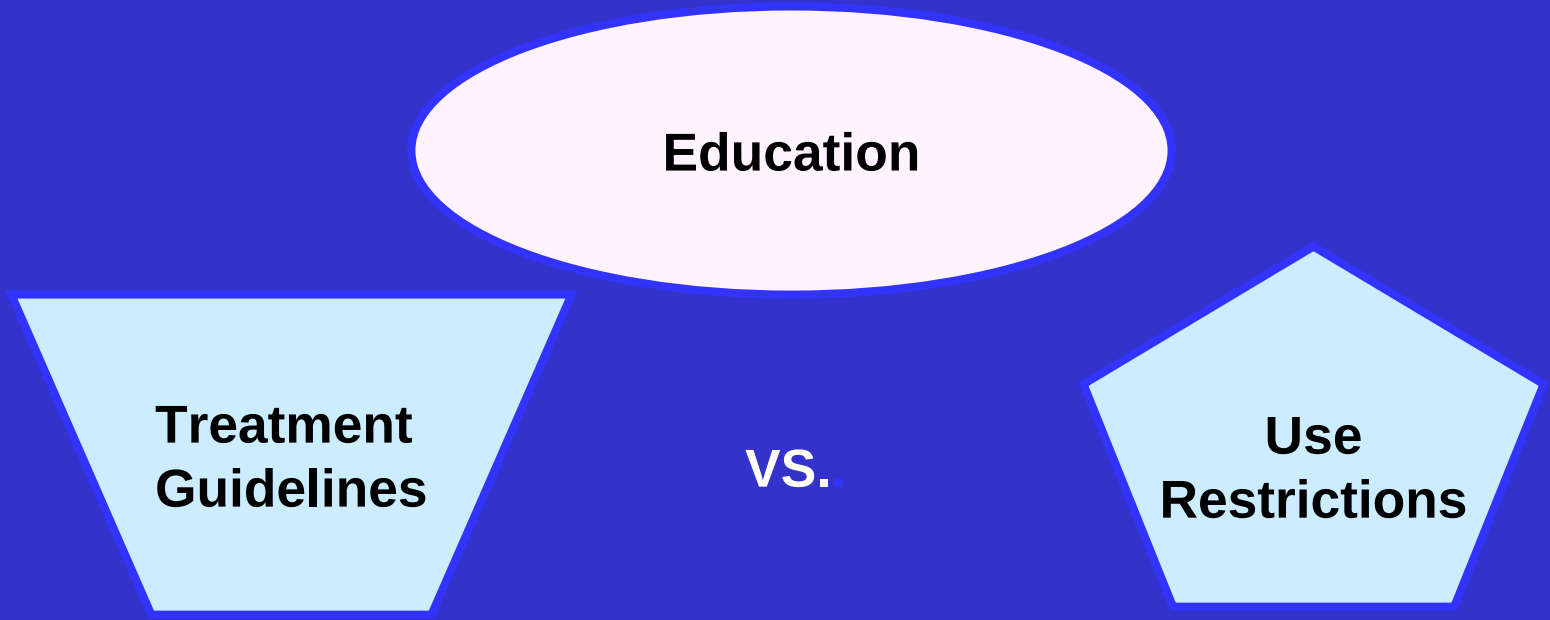
Pregabalin vs. Gabapentin

Calculation of Profit Margin:

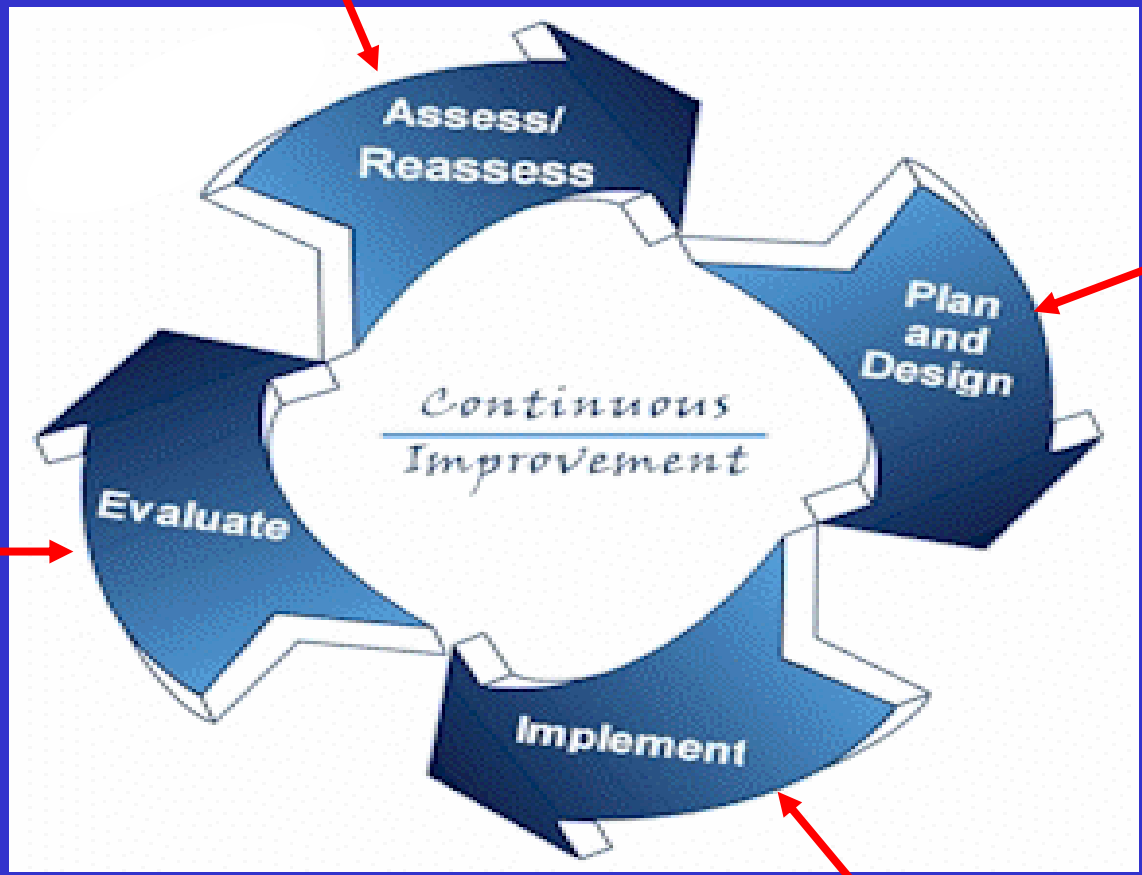


Appropriate Utilization

- **Clinical Criteria for Use**
- **Minimizing Economic Impact**
  - Anticipated Usage



1. Clinical Evaluation
2. Anticipated Usage/Economic Impact



3. P& T evaluation – add or not add to formulary

4. Education
Guidelines vs. Restriction

5. MUE
Economic Impact

Questions?