

*Need for Greater Interaction  
with Patients  
(Some Case Studies)*

*Community Pharmacy Contact Prog. by ACPI  
at KMC Seminar Hall, Med Education Dept,  
KMC, Mangalore  
31<sup>st</sup> May 2009*

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# *Global Mega Trends*



- Individual Provider - Team Provider
- Competition - Co-operation
- Institutionally Based- Community Based
- Individual Focused - Community Focused
- Acute - Chronic Management
- Professionally governed - Managerial
- Curative - Preventive
- Cost unaware - Cost Aware

# *Indian Scene*



- Unprofessional
- Arbitrary
- Cost Unaware
- Provider Focused
- Illiterate Masses
- Semiliterate Prejudiced Elite

## *Indian Scene -- Contd..*



- 60,000 Formulations
- 12,000 Manufacturers
- Toothless Defunct Regulatory Bodies
- Self Styled Alternate Medical Systems
- Spurious Drugs/Banned Drugs/
- Quackery

## *Physician Related*



- Overburdened Physician
- Poor Diagnostic Facilities
- Poor Hospital Facilities
- Poor Drug Information Systems
- Unethical Promotion of Drugs
- Physician is God
- Lack of Accountability

## *Typical Prescription*

Normabrain	1-0-1
Trental	1-0-1
Cereloid	1-0-1
Dispirin	1/2 HS
Zinetac	1-0-1
Donstal	1-0-1
Nimodepin	2-2-2
Becozyme	1
Insulin	12 u

# *Doctor's Dilemma*



There is a fashion in medicines  
as there is in sleeves and skirts..!!

G B Shaw

## *Drug Pushing Vs Managed Care*

- Polypharmacy: No Formulary/ Guidelines
- No Pharmacovigilance: ADRs ignored !
- Expensive drugs - Better treatment!
- Patient often wants a prescription!
- Illiterate/ semiliterate / prejudiced society
- Consumer rights yet to be recognised
- More treatment - More profit

# *Managed Care*



- Contract: comprehensive medical care
- Less admissions, more Ambulatory care
- Prevention rather than cure
- Evidence Based Medicine
- Demanding Consumer Vs Prudent Provider
- Cost effective therapy

# *Role of the Clinical Pharmacist*

- Medication History Review
- Drug Therapy Monitoring
- Ward Rounds
- Selection of Drug Therapy
- Management of Drug Interaction
- Drug Information
- Patient Counseling
- Education & Research

# *Medication History Interview*



- Assess all previous drug therapy
  - OTC drugs/ alternate systems/ duration of therapy/ perceived effectiveness
- Identifying Drug related risks
  - Allergies
  - ADRs / Drug Interactions
  - Compliance
  - Drug Abuse

# *Drug Therapy Monitoring*



- Medication Order Review
  - Legibility
  - Legal aspects: Formulary restrictions
  - Pregnancy/ disease state /age of Patient
  - Route/ Dosage form/ Dosing schedule
  - Interactions/incompatibilities/duplications
  - Diet - Drug interactions
  - Antibiotic Therapy Guidelines

# *Medication Order Review*

## *..Contd.*

- ADR : Detection & Prevention
- Clinical Review
  - Progress of therapy Vs Goals
  - Cost of therapy: Is it affordable?
- TDM [*Therapeutic Drug Monitoring*]
  - Monitor plasma levels of drugs with narrow therapeutic range
  - Poor renal / hepatic clearance

# *Ward Rounds*



- Providing Drug Information
  - kinetics/ pharmacology/
  - ADRs/ interactions/ contraindications
  - alternatives/ cost
- Introducing Trends in Drug Therapy
- Interventions/ Suggestions for Change
- Improves Clinical Skills

# *Drug Information*



- Stay Updated: Provide the latest info
- Provide Accurate / Reliable Info
- Data Search: Answer Questions
- Introduce Latest Trends
- Guide Drug Therapy
- Improve Patient Care

# *Prevention/Assessment/Management of Drug Interactions*



- Identify Risk-Groups
- Assess Commencement of New Therapy
- Assess Cessation of Drug Therapy
- Adjust Dosage/ Route/ Formulation
- Provide Warning

# *Selection of Drug Therapy*



- Optimise Patient Care
- Promote Quality in Drug Therapy
- Follow Guidelines: Formularies etc.

# *Patient Counseling*



- Direct Interaction with Patients
- Communication Skills
- Encourage Safe / Appropriate Drug use
- Educate patients in Using of Inhalers etc.
- Improve Patient's Faith in Therapy
- Improve Compliance
- Important in Illiterates & Semiliterates

# *Education and Research*



- Continuing Education Programmes
- Publication of Newsletters / papers
- Training Pharmacists/ Nursing staff
- ADRs notification / consolidation

# *Evaluation of Clinical Pharmacy Services*

## A Typical Monthly Evaluation Report

*Clinical Pharmacist's Name: XXXX*

- Medication Charts Seen: 91
- Total Interventions: 67
- Reactive: 53 ; Active: 14
- Interventions per chart: 0.73
- Accepted: 62 ; Declined: 5
- \$\$ Saving Interventions: 9

# *Evaluation of Clinical Pharmacy Services.. Contd.*

- Periodic Evaluation a must! .. *Because it*
  - Establishes the value of the CP
  - Evaluates the progress of the department
  - Exposes the weaknesses of the department
  - Helps plan strategies; Saves money
  - Improves the remuneration of pharmacists
- C P saves 17 times his/her salary !!

# *Case Study 1*



Mr Guru, 51yrs, architect, sedentary lifestyle, regular drinker, heavy smoker diagnosed with hypertension twelve years ago visits your Pharmacy and asks for Clonidine 100mcg tablets

He does not produce a prescription. When pharmacist asks for a prescription, he says he is travelling and this drug alone is exhausted.

He admits he is taking four other drugs along with this. He has been prescribed this drug twelve years ago and has never visited the doctor again

Guru is a highly educated and lives a very luxurious life. He is a bachelor and has a two full time servants to run his household

What would you do?

## *Case Study 2*

A seventy year old man , suffering from episodic asthma visits a pharmacy and asks for celestamine tablets.

He is sent back because celestamine is no longer in production.  
Combination drugs with corticosteroids is banned.

He suffers from acute severe asthma and is hospitalised. He is given oral corticosteroids, discharged with a prescription of theophilline tabs

Again there is an attack of severe asthma, he is hospitalised and is discharged with a prescription of betamethasone.

He visits your pharmacy after several years asking for 100 tabs of betamethasone.

What advice would you give him?

## *Case Study 3*

Jyoti, 49 yrs, housewife, sedentary lifestyle, normal vegetarian diet, obese,( blood glucose 140/190 ) comes with a prescription of Metformin 500 mg and Glimipiride 2mg (It was actually changed from pioglitazone because of weight gain)

She tries the medication, but gives it up because of extreme fatigue, does not report this to the doctor because the doctor is short tempered and also related to her.

After 1 month, she is forced by her husband to visit the doctor because her blood glucose rises 170/200. She is given a higher dose of glimiride and sent back

**What would you do?**

## *Case Study 4*



### Zolpidem: Australia

"Less common adverse effects include:

Unexpected changes in behaviour.

rage reactions, worsened insomnia, confusion,  
agitation, hallucinations

Sleep walking, driving motor vehicles and other unusual and on some occasions dangerous behaviours while apparently asleep. preparing and eating food, making phone calls or having sexual intercourse.

People experiencing these effects have had no memory of the events."

# *Unusual side effects of zolpidem*

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# *Zolpidem: Warning from Australia*



The Therapeutic Goods Association has advised pharmacists not to dispense more than a single pack at one time.

Zolpidem should be used for as short a period as possible at the lowest dose possible.

# *Case 5 Alendronate and Osteonecrosis*

An otherwise well 66-year-old woman was referred with pain, swelling and numbness of the left mandible with pus discharging from around a dental implant. Her problems had developed over the previous six months.

The patient had undergone dental reconstruction 15—20 years previously. (\$25 000 above insurance benefits.)

diagnosed with 'borderline osteoporosis'. bone mineral density was —2.42 standard deviations below normal prescribed 70 mg alendronate weekly but later developed stress fractures.

Over three years she took a total dose of 11.2 g.

## *Case 5 contd..*

A clinical diagnosis of bisphosphonate-associated osteonecrosis of the left mandible was made.

A CT scan showed extensive involvement around the infected implant. The right mandible and maxilla were not involved.

Alendronate was ceased and non-surgical treatment commenced with 0.12% chlorhexidine mouth washes, intermittent short courses of cephalosporins for the soft tissue infection, and tramadol or paracetamol with codeine for the pain. This controlled the acute symptoms.

## *Case 5 contd..*

One year after stopping alendronate the symptoms recurred. A repeat CT scan showed extension of the necrosis without bone reformation. The involved implant and soft tissue were curetted under general anaesthesia. The wound healed slowly

### Comment

In this case alendronate was commenced before bisphosphonate-associated osteonecrosis

Osteonecrosis associated with a previously stable implant was one of the first such presentations in Australia.

## *Case 5 contd..*

Common triggers for osteonecrosis of the jaws were dental extractions, periodontal disease or oral trauma.

Approximately three million prescriptions for oral bisphosphonates last year, and 10% of all Australians have a dental extraction in any given year.

Although the risk of osteonecrosis of the jaws after dental extraction is low (0.1—0.3%) for a patient on oral bisphosphonates for osteoporosis, the potential number of cases is high.<sup>3</sup>

*Who is the most important  
person in the hospital?*





*The Patient!*



*Patient is also the most  
important person in the  
Pharmacy!*

*Do what you can  
for him!!*

*Thank you!!*  
*Jai Hind!*



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