

Communicating and Understanding Complex Drug Regimens

Med R_xreminder

Brian Rulifson

Isabel

- Age 45
- Married, 1 child in college
- Borderline Diabetic



Isabel's Medications

Glucophage

50mg 2/day

So she won't have
to use Insulin

Isabel's Medications

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Lasix	10 mg 1/day	High Blood Pressure
Premarin	625mcg 1/day	Hormone replacement therapy

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Reglan	10 mg 4/day	Stomach Problems
Ativan	1 mg every 4 hours as needed	Anti-Nausea
Protonix	40 mg 1/day	Stomach problems
Famotidine	20 mg 2/day	Controls Stomach Acid
Metoprolol	50 mg ½ tablet 2/day	High Blood Pressure
Colace	250 mg 2/day	Stool Softener
Vicodin	1-2 tablets every 4-6 hours	Pain
Ondansetron	8 mg IV	Anti-Nausea
Compazine	10 mg IV every 6 hours	Anti-Nausea (if needed)
Carboplatin AUC	330 mg in D5W 250ml IV	Chemotherapy
Cyclophosphamide	1000 mg in NS 500ml IV	Chemotherapy

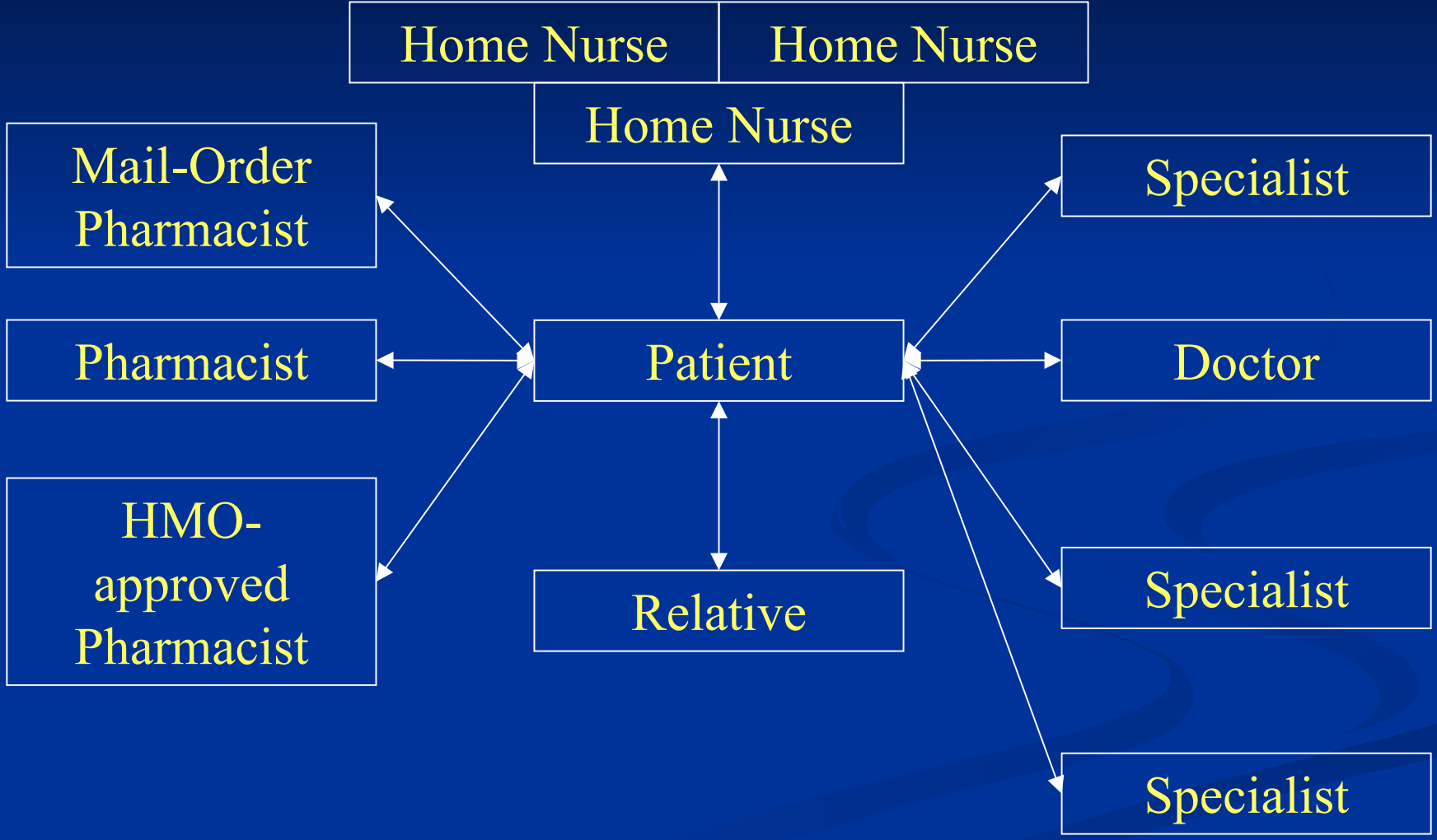
Complicating Factors

- Low Literacy
- Memory Problems
 - Tranquilizers, Depressants
 - Elderly
- Live Alone
- Multiple Doctors
- Multiple Pharmacists
- Change HMOs

Healthcare for Healthy People



Healthcare for Unhealthy People



Current Communication

- Calendar
 - Printed
 - Cardboard layout
- List
- Folder of Prescription papers
- Spreadsheet

- “Bottle Bag”



Why Not Focus on Involving Current Medical Professionals?

Doctors:

1. No Time
2. No Time
3. No Time

Pharmacists:

1. No Time
2. No Time
3. No Time

Project Focus

- Patients with Complicated Drug Regimens
 - 4-12 medications
 - Extensible for more
- Patient has Additional Caregivers
- Effective Communication with Providers
 - Portable
 - Easy to Update
 - Inclusive of Low-Literacy patients

Initial Prototype



- ✓ Bold Graphics
- ✓ Easy to Understand
- ✗ Can't See the Pill
- ✗ Card too Heavy for Contents
- ✗ Flimsy Strips

Intermediate Prototype



- ✓ Hand printing
- ✓ See the Pill
- ✓ Includes OTC and Supplements
- ✗ Awkward size
- ✗ Where does it get stored?
- ✗ No place to put today's medications (for doctor visit)

Med Reminder



- ✓ Hand printing
- ✓ See the Pill—No Ambiguity
- ✓ Includes OTC and Supplements
- ✓ Bold Graphics
- ✓ Rolls Up Small
- ✗ Expensive to Sew

Manufacturing

- **Pill Stick:**
 - Injection Molded Styrene
 - ~\$.09 each @ 3,000,000 sticks/yr
- **Sewn Case**
 - ~\$40 per piece made in USA

Phase IV

- Two-Piece Snap Fit Pill Stick
- Explore Rubber Moldings for Rollup bag

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