EDUCATIONAL SESSION ABSTRACT
2010 ASHP Midyear Clinical Meeting
Anaheim, California

305-1

Telepharmacy Rules and Regulation

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Remote order entry and telepharmacy are relatively new technologies and services that are increasingly being used to help manage the shortage of pharmacists and to extend pharmacist services to more patients. The need for these services is addressed in Joint Commission standards, the NABP model practice act, and by ASHP. However, many states do not have regulations in place to allow the use of telepharmacy (e.g. remote supervision of pharmacy technicians or nurses). Suggestions for working with your state board of pharmacy to develop and gain approval for regulations guiding the use of telepharmacy are provided. In addition, a case study describing the steps taken to develop regulations in one state is presented.

Learning Objectives:

1. explain the regulatory issues and environment under which telepharmacy services my be provided.
2. describe ways you can work with regulatory agencies in your state to facilitate adoption of telepharmacy regulations.

Self-Assessment Questions:

1. (True or False) The Joint Commission standards specifically exclude pharmacists from using telepharmacy as a method for meeting standard MM.05.01.01?
2. The best way to work with your state board of pharmacy to develop telepharmacy regulations would be to:
    a. focus on patient safety during discussions
    b. go past the board by working with your state legislature
    c. offer to provide assistance and input during the process
    d. both a and b
    e. both a and c

Answers: 1. (F); 2. e

A Hitchhiker's Guide to Telepharmacy

Sunday, December 5, 2010
1:50 PM – 3:20 PM

Disclosures

The Program Chair and presenters for this continuing pharmacy education activity report no relevant financial relationships except:

- Emily Alexander - Envision Telepharmacy employee
- Becky K. Harvey - Envision Telepharmacy employee

Telepharmacy Rules and Regulation

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Director of Pharmacy
Via Christi Hospitals Wichita
and
Member, Kansas State Board of Pharmacy

Definitions & Differentiation

- Remote order entry (ROE)
- Telepharmacy (e.g. remote supervision)

Definition - ROE

- "orders are scanned and transmitted to a pharmacy in a distant location (off campus) where they are reviewed by a pharmacist and entered into the pharmacy computer system and/or electronic medical record prior to dispensing at the remote site"

Darryl Rich, The Joint Commission, 2007

Definition - Telepharmacy

- "a central pharmacy, either retail or associated with a hospital, is connected via computer, audio, and video link to one or more remote sites. A licensed pharmacist at the central site conducts remote order entry and then supervises the dispensing of medication at the remote site through the use of video conferencing technology"

Darryl Rich, The Joint Commission, 2007

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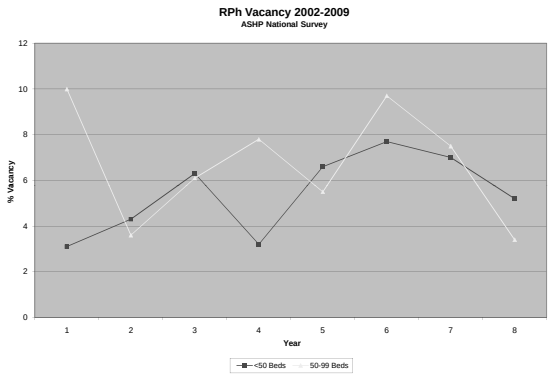
Question

- In a medical care facility pharmacy:

  1) does your state allow remote order entry?

  2) does your state allow remote supervision of pharmacy technicians (e.g. telepharmacy)?

Why should we consider allowing telepharmacy?



Standards, Regulations and Laws

The Joint Commission

MM.05.01.01 A pharmacist reviews the appropriateness of all medication orders for medications to be dispensed in the hospital

ASHP Policy Position (0716)

- "To advocate that boards of pharmacy adopt regulations that enable the use of United States-based telepharmacy services for all practice settings; further…"

www.ashp.org/DocLibrary/BestPractices/policypositions2009.aspx

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NABP Model State Act / Model Rules

- "the practice of telepharmacy within and across state lines" is included in the definition of pharmacy practice

State Telepharmacy Regulations

ND	Admin Code 61-02-08
Montana	Code 37-7-101, Rule 24.174.1302, Rule 24.174.1303
SD	Law 36-11-71, Law 36-11-72, Rule 20:51:30
TX	Code 22-15-291, Subchapter D and G
Idaho	Admin Code IDAPA
Utah	Code 58-17b-102 and 58-17b-612

Am J Health-Syst Pharm 2010; 67: 1085-92

Working with your State Board of Pharmacy: A Case Study

Working With Your State Board

- Each Board is different / independent
  - -priorities, protocols, membership, etc
- Work from "inside" if possible
- Identify professional concerns of Board members
  - -separate regulations for community / hospital pharmacy
- Offer to provide assistance
  - -background research, working models, task force participation
- Focus on need / importance of telepharmacy
  - -patient safety, unmet need, expansion of pharmacist services

Kansas: A Case Study

- Hospital / Board attorney interaction
- Request to speak at Board meeting
- Participation on Board task force
- Appointment to Board of Pharmacy
- Assistance drafting regulations

Kansas: A Case Study

Focus of the Board & Task Force

- Pharmacist shortage, especially rural areas
- Improve medication safety
- Expand access to pharmacist services
- Fear: reducing the overall need for pharmacists!!!

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Kansas: A Case Study

Key Task Force Considerations

- RPh only supervises one technician at a time per facility
- RPh must be licensed in Kansas
- Hospital should employ or contract with RPh providing the service
- Pharmacy technician at least 1 year experience and demonstrates knowledge & competence

Kansas: A Case Study

Key Task Force Considerations

- Local hospital responsible to monitor records
- AV stored on server at local hospital
- Video standard high enough to allow RPh to perform all functions
- Approvals/checks by RPh captured/stored on server
- Training manual up-to-date and available

STOP: possible in small hospital???

Kansas: A Case Study

Multiple steps to final approval

- Board attorney drafts language
- Board review and approval
- Department of Administration approval
- Attorney General approval
- Public hearing
- Revisions
- Finally becomes law…!

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Remote Order Entry: Providing Services from Your Hospital

Andrea Darr, PharmD, BCPS
Avera ePharmacy Manager
Avera Health System &
Avera McKennan Hospital & University Health Center
Sioux Falls, SD

Avera ePharmacy

- 8.5 FTE Pharmacists + IT support
- Serving multiple facilities in 4 states
- Grant Support
  - South Dakota Department of Health
  - United States Department of Agriculture (USDA)
  - Leona M. and Harry B. Helmsley Charitable Trust

Technology Considerations

- Computer System
- Order Management System
- Formulary
- IT Support

Staff Training & Development

- Selective Hires
- On-Site Training
- Routine Site Visits
- Documentation

Data Reporting & Sharing

- Scan Volume
- Turnaround Time
- Intervention Data
- Acceptance Rate

Ongoing Communication

- Conference Calls
- Standing Meetings
- Phone Calls
- Site Visits

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Benefits to Organization

- Standardization
- Process Evaluation
- Collaboration

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Remote Order Entry: Finding a Provider and Getting Ready!

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Pharmacy Director
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Remote Order Entry: Finding a Provider and Getting Ready!

- WVMC Demographics
- Finding a Telepharmacy Provider
- Implementing Telepharmacy Services
- Lessons Learned
- Future Opportunities

WVMC Demographics

WVMC Demographics

- Physician led healthcare organization
- 8 Clinics
- 1 Hospital
  - 20 beds
  - Level V trauma center
  - 1.75 Pharmacist FTE's

Finding a Telepharmacy Provider

- Needs Assessment
  - Opening an Emergency Room
  - Hospitalist Coverage
  - Vacation/sick call coverage
  - Required 24 hour pharmacy support
    - Clinic staffing model
    - Safety concerns
    - Cost prohibitive to provide 24/7 pharmacy coverage

Finding a Telepharmacy Provider

- WVMC pharmacy provides the following services
  - Computerized order entry
  - Pharmacy managed protocols
  - Medication management policies
  - Safe medication use
  - Coordinate medication delivery

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Question

- What should the minimum criteria be in selecting my telepharmacy provider?

Finding a Telepharmacy Provider

- Develop minimum criteria for telepharmacy selection
  - Board of Pharmacy approval
  - Flexibility
  - Utilizes pharmacy order entry system
  - Clinical services
  - Information technology (IT) requirements
  - Hospital trained/competent staff
  - Reasonable cost

Implementing Telepharmacy Services

- Training
  - Telepharmacy staff
  - WVMC hospital staff
- Communication
  - Electronic Medical Record
  - Intranet
  - Staff meetings
  - Regular operation meetings

Implementing Telepharmacy Services

- Technology
  - Telepharmacy
    - Software
    - Hardware
  - WVMC Hospital
    - Automated dispensing cabinets
    - Pharmacy order entry system
  - IT support

Implementing Telepharmacy Services

- Policy and procedures
  - "That's the way we've always done it"
  - "Everybody knows how to do that"
  - Procedure is key for the telepharmacist
    - How do you obtain medications from the other facilities?
    - When is it OK to reprint a medication administration record?

Lessons Learned

- Be prepared to change the way you do things
  - Competency verification
  - Who's on-call?
- Communication is a challenge
- Added workload for nursing
- Processes take more time

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Lessons Learned

- Expand minimum criteria
  - Telephone communication
  - Consistent staffing
  - Transparent services

Future Opportunities

- How can WVMC hospital utilize telepharmacy technology?
  - Order scanning technology
  - Electronic medical record
  - Camera Technology

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305-4

One Step Further: Outcomes of a Successful Clinical Telepharmacy Program

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A Hitchhiker's Guide to Telepharmacy is a proposed session designed to address the educational needs of the both the small and rural hospital pharmacy practitioner and potential telepharmacy provider regarding remote order entry, rules and regulations, alternative practice settings, and unique staffing and clinical pharmacy positions. This two hour block, consisting of five 20 minute sessions, presents a comprehensive telepharmacy inspection by including sessions on the regulatory aspects, the processes of preparing for both the delivery of and receipt of remote order entry services, the alternative practice setting of telepharmacy using electronic supervision of pharmacy technicians, and finally, a successful clinical pharmacy program administered through telepharmacy.

Most small and rural hospital practitioners considering telepharmacy programs must navigate in unfamiliar territory to begin evaluating needs, best service options, and justification for either receiving or providing telepharmacy services. This presentation addresses the telepharmacy questions many hospital pharmacists have about what they can do, where they can do it, and the extent to which telepharmacy services may benefit their facility or outlying facilities.

Learning Objectives:

1. Name institution-specific requirements to be used when evaluating potential telepharmacy services.
2. Identify challenges in implementing a telepharmacy program at your facility.
3. Explain the regulatory issues and environment under which telepharmacy services may be provided.
4. Describe ways you can work with regulatory agencies in your state to facilitate adoption of telepharmacy regulations.
5. Recognize how a remote clinical pharmacy program effects the possible preventable adverse drug events.

Self-Assessment Questions: (True or False)

1. Studies show 400,000 preventable drug related injuries occur each year in hospitals.
2. Patients who suffer unintended drug events remain in the hospital an average of 8 to 12 days longer than patients who did not experience such mistakes.

Answers: 1. (T); 2. (T)

THE MIDYEAR2010

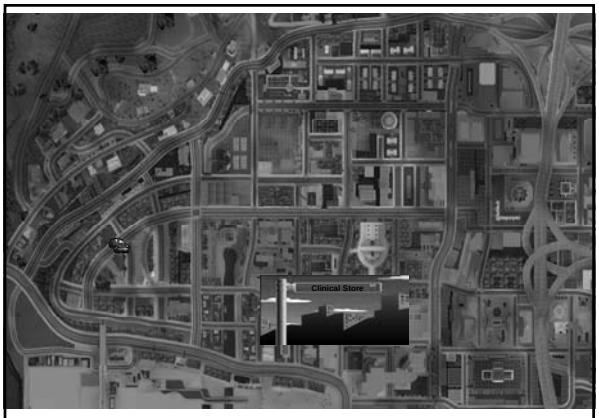
One Step Further: Outcomes of a Successful Clinical Telepharmacy Program

Becky Harvey PharmD
Envision Telepharmacy
Alpine, Texas

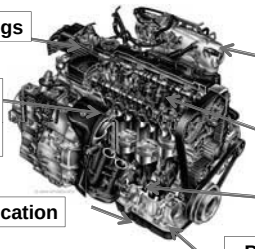
Red River Regional Hospital

Rural Acute Care Hospital

- Avg. Daily Census
- Avg. Patient Days
- #Hours Supervision Per Week
- Two Full Time Techs
- Automated Dispensing Units

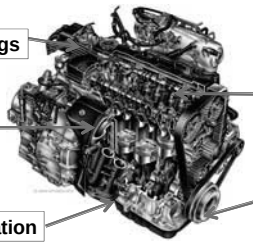


Components of a Clinical Pharmacy Program



- Prescribing Drugs
- Documenting Professional Services
- Communication
- Administering Drugs
- Reviewing Drug Use
- Counseling
- Preventing Medication Errors

Clinical Pharmacy Program with Electronic Supervision of Technicians



- Prescribing Drugs
- Documenting Professional Services
- Communication
- Reviewing Drug Use
- Preventing Medication Errors

Prescribing Drug Protocols

Vancomycin Levofloxacin Aminoglycosides	Physician Wrote "Dosing Per Pharmacy"	Recommended New Dose	Per Cent Accepted New Dose
2008	0	0	0
2009	2	254	66%
2010	7	258	71%

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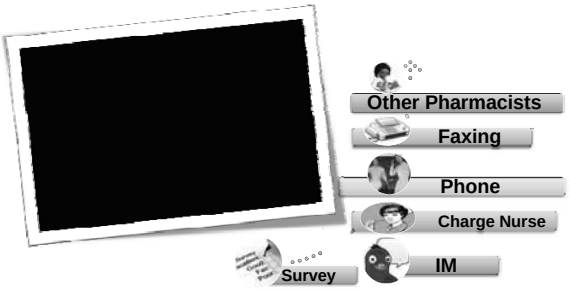
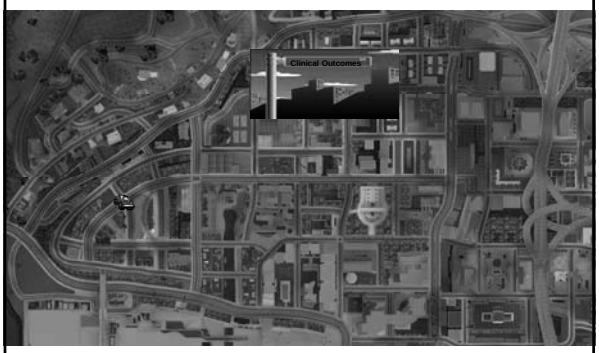
Documenting Professional Services

Process	Incomplete Orders	Near Misses	Antibiotic Review	Dosing Per Pharmacy	Medications
EST OEV OER RR	DNU Date/Time Allergies Ht/Wt Sig Illegible	Wrong: Dose Drug Frequency Route Dosage Form Quantity Omission	Cipro Gentamicin Levofloxacin Piperacillin/Tazobactam Vancomycin	Levofloxacin Aminolycoside Vancomycin	Aspirin Enoxaparin Heparin Insulin KCL Warfarin

EST:Electronic Supervision of Technicians OER:Order Entry OEV:Order Entry Verification Review RR: Review Records

Communication





Clinical Outcomes: Pharmacist Recommendations

1. Drug-Drug Interaction
2. Drug-Disease Compatibility
3. Duplication of therapy
4. Drug not indicted
5. Prevent or manage adverse event
6. Prevent or manage drug allergy
7. Switch from IV to PO route
8. Therapeutic Recommendation
9. Adjust Dosage or Frequency

Monitoring for Cost Avoidance

1. Drug-Drug Compatibility
   Drug-Disease Compatibility
   Duplicate Therapy
   Drug Not Indicated
2. Medication Error Prevention
3. Therapeutic Recommendations

Pharmacist Recommendations

Drug Interaction Drug-Disease Duplicate Therapy Drug Not Indicated	Recs. Per Year	Avg.Cost Avoidance Per Intervention	Average Probability of Harm	Total Cost Avoidance Per Year
2008	0	0	0	0
2009	54	$910	0.45	$49,167
2010	63	$910	0.47	$57,330

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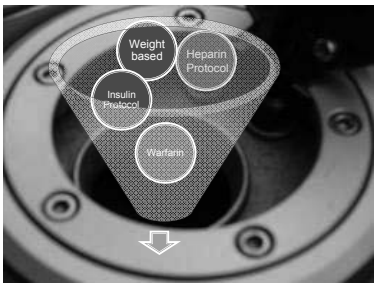
Medication ADE's Prevention

Data Reviewed: 1. Prescribing Errors 2. Allergy to Med 3. Illegible 4. Lack of Allergy 5. Incomplete Orders	Year	Number of Preventable ADE's	Average Prevented ADR per Day	Average Cost Avoidance Per Year	Potential Malpractice Claims Avoidance per Year
	2008	60	0.2	$63,000	$525,000
	2009	181	0.5	$190,000	$1.5M
	2010	553	1.5	$580,450	$4.8M

Therapeutic Recommendations

Data Reviewed:	Year	Number of Interventions per Year	Average Interventions Per Day	Average Cost Avoidance Per Year
Antibiotics Therapeutic Interchanges Narrow Therapeutic Index	2008	46	0.13	$54,648
	2009	254	0.94	$301,752
	2010	258	0.96	$306,504

Potential Areas to Develop



Future Plans

Discharge Web Counseling

Video Streaming for IV Preparations

Question

Studies show 400,000 preventable drug related injuries occur each year in hospitals

a. **True**
b. **False**

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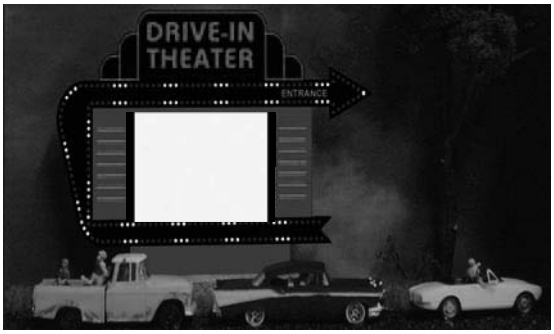
Question

Patients who suffer unintended drug events remain in the hospital an average of 8 to 12 days longer than patients who did not experience such mistakes

a. **True**
b. False



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7. Institute of Medicine, National Academy of Sciences
8. Agency for Healthcare Research and Quality
9. Source: Institute of Medicine, National Academy of Sciences

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