Date: March 16, 2017
Time: 3:30pm-5:00pm

Bridging the GAP

A WEBINAR ADDRESSING THE GAP BETWEEN ACUTE AND NON-ACUTE CARE SETTINGS

NV ASP
Nevada Antimicrobial Stewardship Program
The Island of Reno, Sparks and Carson City
The Island of Las Vegas & Henderson
Nevada is a Small Part of Our World
Think Globally - Act Locally

“Bridge the Gap” Between Health Care Providers

Presented by:

Norman Wright, RN, BSN, MS
Kindred Hospital, Sahara

and

Lisa Schaffer, RN, CIC
Mountainview Hospital
http://dpbh.nv.gov/Programs/Office_of_Public_Health_Informatics_and_Epidemiology_(OPHIE)/
https://twitter.com/nv_ophie

With the support of:
Kimisha Causey & Adrian Forero

APIC
Spreading knowledge. Preventing infection.

HealthInsight
a partnership for the future of health care
Learning Objectives

Develop a collaborative between Nevada APIC chapters, Health Care Providers and OPHIE to reduce transfer of pathogens.

Develop goals to improve communication between all Nevada Health Care Providers.

Promote safe transfer of patients between the varied Health Care levels from Acute Care Hospitals, LTAC, LTC to Home Health Care.

Promote the use of Inter-facility transfer form between varied systems and levels of health care.
Las Vegas, Reno and Nevada is a very small part of our World
Think Globally
Act Locally
First we must define the problem.
Defining the problem

Bacteria have become resistant to antibiotics
Antibiotic-resistant germs cause more than 2 million illnesses and at least 23,000 deaths each year in the US.

Up to 70% fewer patients will get CRE over 5 years if facilities coordinate to protect patients.

Preventing infections and improving antibiotic prescribing could save 37,000 lives from drug-resistant infections over 5 years.

https://www.cdc.gov/vitalsigns/stop-spread/index.html
According to CDC the Problems are:

• Germs spread between patients and across facilities.
• Antibiotic resistance is a threat.
• *Nightmare germs called CRE (carbapenem-resistant Enterobacteriaceae)* can cause deadly infections and have become resistant to all or nearly all antibiotics we have.
• CRE spread between health care facilities like hospitals and nursing homes when appropriate actions are not taken.
• MRSA infections commonly cause deadly pneumonia & sepsis.
• *Pseudomonas aeruginosa* can cause HAIs, including bloodstream infections. Strains resistant to almost all antibiotics are in hospitalized patients.
• These nightmare germs are some of the most deadly resistant germs identified as “urgent” and “serious” threats.

https://www.cdc.gov/vitalsigns/stop-spread/index.html
Hospital Transfer Network Structure as a Risk Factor for *Clostridium difficile* Infection

“Results suggest infection control is not under the exclusive control of a given hospital but is also influenced by the connections and number of connections that hospitals have with other hospitals.”


http://dpbh.nv.gov/uploadedFiles/dpbhnygov/content/Programs/OPHIE/dta/Publications/C.%20diff%20-%20Washoe%20(v%202014%2001%2030%20e%2020%2001%2002%201).pdf

“This elderly appearing man, with repeated multiple admissions across multiple facilities throughout the Las Vegas Valley, presented to the hospital on a transfer from a local post-acute facility.”

“This epidemic strain of Clostridium Difficile (NAP 027-NAPI-BI) is known to produce a significantly higher number of C-diff spores.”

The epidemic BI/NAP1/027 strain of C. difficile is more lethal, causes more extensive brain hemorrhage, and is antigenically variable from previously studied strains.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3731247/
“Public health officials reported a Reno woman who died last year from an incurable superbug – a problem that is spreading in the U.S.

The bug was resistant to 26 different antibiotics, according to the Morbidity and Mortality Weekly Report.

So the CDC basically reported that there was nothing in our medicine cabinet to treat this lady,” said Dr. Randall Todd, division director of epidemiology & public health preparedness for Washoe County Health Dist.
### Inter-facility Infection Control Transfer Form

This form must be filled out for transfer to accepting facility with information communicated prior to or with transfer.

Please attach copies of latest culture reports with susceptibilities if available.

### Sending Healthcare Facility:

<table>
<thead>
<tr>
<th>Patient/Resident Last Name</th>
<th>First Name</th>
<th>Date of Birth</th>
<th>Medical Record Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name/Address of Sending Facility</th>
<th>Sending Unit</th>
<th>Sending Facility phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sending Facility Contacts</th>
<th>NAME</th>
<th>PHONE</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Manager/Admin/Supervisor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infection Prevention</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Is the patient currently in isolation?**  
- ☐ NO  
- ☐ YES

**Type of Isolation (check all that apply)**  
- ☐ Contact  
- ☐ Droplet  
- ☐ Airborne  
- ☐ Other:

**Does patient currently have an infection, colonization OR a history of positive culture of a multidrug-resistant organism (MDRO) or other organism of epidemiological significance?**

- Methicillin-resistant Staphylococcus aureus (MRSA)
- Vancomycin-resistant Enterococcus (VRE)
- Clostridium difficile
- Acinetobacter, multidrug-resistant*
- E.coli, Klebsiella, Proteus etc. w/Extended Spectrum B-Lactamase (ESBL)*
- Carbenapenemase resistant Enterobacteriaceae (CRE)*

<table>
<thead>
<tr>
<th>Colonization or history</th>
<th>Check if YES</th>
<th>Active infection on Treatment</th>
<th>Check if YES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Does the patient/resident currently have any of the following?**

- ☐ Cough or requires suctioning
- ☐ Diarrhea
- ☐ Vomiting
- ☐ Incontinent of urine or stool
- ☐ Open wounds or wounds requiring dressing change
- ☐ Drainage (source)
- ☐ Central line/PICC (Approx. date inserted ___/___/_____
- ☐ Hemodialysis catheter
- ☐ Urinary catheter (Approx. date inserted ___/___/_____
- ☐ Suprapubic catheter
- ☐ Percutaneous gastrostomy tube
- ☐ Tracheostomy

**Is the patient/resident currently on antibiotics?**  
- ☐ NO  
- ☐ YES:

<table>
<thead>
<tr>
<th>Antibiotic and dose</th>
<th>Treatment for:</th>
<th>Start date</th>
<th>Anticipated stop date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Vaccine**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Date administered (If known)</th>
<th>Lot and Brand (If known)</th>
<th>Year administered (If exact date not known)</th>
<th>Does Patient self report receiving vaccine?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza (seasonal)</td>
<td></td>
<td></td>
<td></td>
<td>☐ YES ☐ NO</td>
</tr>
</tbody>
</table>
The Journey of the IFICTF

- September 2015 - The need for a better communication tool was identified
- Give our community partners the same information that we want them to give us
- October 2015 - Brought the idea to each of our committee meetings for “buy in”
- Identified the “Top 10” places our patients go to and come from
- November 2015 - Invited the “Top 10” to Mountainview Hospital to review our communication tool
- December 2015 - Updated the transfer papers to eliminate “double documentation”
- January 2016 - Shared and received approval with various medical committees at Mountainview.
- Shared with NV ASP, local APIC chapter
- February/March 2016 - Housewide Education Campaign
- April 2016 - Official kick off
- May-September 2016 - Feedback, reinforcement, shared communication from other facilities
- October 2016 - Back to Basics
- November 2016 - Present - Continue to educate (Nursing Orientation, GME, Staff Meetings)
Feedback...teaching moments

• Incomplete forms are sent to me from receiving facilities

• Copies are reviewed with involved staff

• Sharing the POSITIVES has been very important, it’s really helped get the staff on board

• Received this email on May 3, 2016 .....our process kick off was April 19, 2016. This email was shared on our hospital intranet

• We transferred in a patient a couple of nights ago. When I came in the following morning to look over the admission I saw the patient was coming from an acute hospital stay r/t SIRS and was here to finish out the antibiotics. They had been pan cultured while in the hospital which showed multiple systems affected with multiple MDROs. EVERY culture including date, origin of specimen and result with organism was there. I was able to review the meds and clinical status, get out onto the floor and work with the nurses and CNAs on things to be watching for and what to report right way. I then called our ID provider and by the time I was done, felt like we had a great handle on the patient and his care.
Facilities need to work together

As members of the healthcare community all of us are responsible for preventing the transmission of organisms.

Communication between facilities is just as important as communication within each of our individual facilities.

When we don’t work together, we have the potential to cause harm to our patients.

Let’s not forget about involving transport companies and EMS so that they can take proper precautions.
Common Approach *(Not enough)*

- Patients can be transferred back and forth from facilities for treatment without all the communication and necessary infection control actions in place.
Independent Efforts (Still not enough)

- Some facilities work independently to enhance infection control but are not often alerted to antibiotic-resistant or C. difficile germs coming from other facilities or outbreaks in the area.

- Lack of shared information from other facilities means that necessary infection control actions are not always taken and germs are spread to other patients.
Coordinated Approach (Needed)

- Public health departments track and **alert** health care facilities to antibiotic-resistant or *C. difficile* germs coming from other facilities and outbreaks in the area.

- Facilities and public health authorities share information and implement shared infection control actions to stop spread of germs from facility to facility.
More patients get infections when facilities do not work together.

(Example: 5 years after CRE enters 10 facilities in an area sharing patients)

**Common Approach**
(status quo)

- 2,000 patients will get CRE.
- CRE will impact **12%** of patients.

**Independent Efforts**

- 1,500 patients will get CRE.
- CRE will impact **8%** of patients.

**Coordinated Approach**

- 400 patients will get CRE.
- CRE will impact **2%** of patients.

SOURCE: CDC Vital Signs, August 2015.
Take Steps Now! Public health departments should lead coordination.

- Identify the health care facilities in the area and how they are connected.
- Dedicate staff to improve connections and coordination with health care facilities in the area.
- Work with CDC to use data for action to better prevent infections and improve antibiotic use in health care settings.
- Know the antibiotic resistance threats in the area and state.

SOURCE: CDC Vital Signs, August 2015.
Facilities work together to protect patients.

**Common Approach (Not enough)**

- Patients can be transferred back and forth from facilities for treatment without all the communication and necessary infection control actions in place.

**Independent Efforts**

- Some facilities track antibiotic-resistant or C. Difficile germs coming from other facilities in the area.
- Some facilities share information from other facilities that necessary infection control actions are not always taken and germs are spread to other patients.

**Coordinated Approach (Needed)**

- Public health departments track and alert health care facilities to antibiotic-resistant or C. Difficile germs coming from other facilities and outbreaks in the area.
- Facilities and public health authorities share information and implement shared infection control actions to stop spread of germs from facility to facility.
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ONVASP
Nevada Antimicrobial Stewardship Program

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www.nvasp.net
SIMON & GARFUNKEL
THE 59th STREET
BRIDGE SONG
I AM A ROCK
(FEELIN' GROOVY)
“Superbug”
Infection Preventionists Raise Your Hand
I’m an Infection Monitor
Duck and Cover
### Countries with Former Widespread Transmission and Current, Established Control Measures

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Cases (Suspected, Probable, and Confirmed)</th>
<th>Laboratory-Confirmed Cases</th>
<th>Total Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guinea</td>
<td>3814</td>
<td>3358</td>
<td>2544</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>14124</td>
<td>8706</td>
<td>3956</td>
</tr>
<tr>
<td>Liberia</td>
<td>10678</td>
<td>3163</td>
<td>4810</td>
</tr>
<tr>
<td>Total</td>
<td>28616</td>
<td>15227</td>
<td>11310</td>
</tr>
</tbody>
</table>

## Ebola deaths outside of Africa

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Cases (Suspected, Probable, and Confirmed)</th>
<th>Laboratory-Confirmed Cases</th>
<th>Total Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>20</td>
<td>19</td>
<td>8</td>
</tr>
<tr>
<td>Senegal</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Spain</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>United States</strong></td>
<td><strong>4</strong></td>
<td><strong>4</strong></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td>Mali</td>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Italy</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>36</strong></td>
<td><strong>34</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

A “Nevada nurse” in “isolation” in New Jersey after working with Ebola patients.
Defining the problem

Bacteria Are Resistant to Antibiotics

We Must All Be Infection Preventionists
Nursing Homes and Assisted Living (Long-term Care Facilities [LTCFs])

In “Nursing homes, skilled nursing facilities, and assisted living facilities, LTCFs) . . . Infections are a major cause of hospitalization and death; as many as 380,000 people die of infections in LTCFs every year.”

https://www.cdc.gov/longtermcare/prevention/
https://www.cdc.gov/hai/pdfs/toolkits/InfectionControlTransferFormExample1.pdf
“The LTCF is functionally the home for the resident, who is usually elderly and in declining health and will often stay for years, hence comfort, dignity, and rights are paramount. It is a low-technology setting. Residents are often transferred between the acute care and the LTC setting, adding an additional dynamic to transmission and acquisition of HAIs.”

https://www.cdc.gov/longtermcare/prevention/

========================================================================

“An atmosphere of community is fostered (in the LTCF), and residents share common eating and living areas and participate in various activities. Thus, the psychosocial consequences of isolation measures must be carefully balanced against the infection control benefits.”

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3319407/
The presence of MDROs in the LTCF has implications beyond the individual facility. Because residents of LTCFs are hospitalized frequently, they can transfer pathogens between LTCFs and receiving hospitals; transfer of patients colonized with MDROs between hospitals and LTCFs has been well documented. On the other hand, LTCF residents remain in the facility for extended periods of time, and the LTCF is functionally their home. An atmosphere of community is fostered, and residents share common eating and living areas and participate in various activities. Thus, the psychosocial consequences of isolation measures must be carefully balanced against the infection control benefits.

Implementation of isolation procedures identical to those found in a hospital may result in undesirable social and psychological consequences & functional decline for residents.207

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3319407/
“Transmission-based precautions” (a.k.a. “Isolation”) refers to the actions (precautions) implemented, in addition to standard precautions, that are based upon the means of transmission (airborne, contact, and droplet) in order to prevent or control infections.”

**Transmission-based precautions** are maintained for as long as necessary to prevent the transmission of infection. It is appropriate to use the least restrictive approach possible that adequately protects the resident and others. Maintaining isolation longer than necessary may adversely affect psychosocial well-being. The facility should document in the medical record the rationale for the selected transmission-based precautions.

“The use of appropriate transmission-based precautions when an LTCF resident develops symptoms or signs of a transmissible infection ...reduces transmission opportunities.”

However, once it is confirmed that the resident is no longer a risk for transmitting the infection, removing transmission-based precautions avoids unnecessary social isolation.

The Consequences of Poor Communication During Transitions from Hospital to Skilled Nursing Facility: A Qualitative Study

SNF Nurses described feeling overwhelmed by the constant need to gather and reconcile information received from hospitals. (because of) inadequate discharge communication.

Missing or incomplete, conflicting, and inaccurate information produced significant care delays because of the time-consuming process of gathering and reconciling the information required to implement a safe plan of care.

Conclusion: Nurses noted multiple deficiencies in hospital-to-SNF transitions, with poor-quality discharge communication being identified as the major barrier to safe and effective transitions. This information should be used to refine and support the dissemination of evidence-based interventions that support transitions of care.

https://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html
Defining the Problem

According to the CDC, "Each year in the United States, at least 2 million people become infected with bacteria that are resistant to antibiotics and at least 23,000 people die each year as a direct result of these infections."
“The damaging effects of antimicrobial resistance (AMR) are already manifesting themselves across the world. Antimicrobial-resistant infections currently claim at least 50,000 lives each year across Europe and the US alone, with many hundreds of thousands more dying in other areas of the world. But reliable estimates of the true burden are scarce.”

http://amr-review.org/
“Based on scenarios of rising drug resistance for six pathogens to 2050, we estimated that unless action is taken, the burden of deaths from AMR could balloon to 10 million lives each year by 2050, at a cumulative cost to global economic output of 100 trillion USD. On this basis, by 2050, the death toll could be a staggering one person every three seconds and each person in the world today will be more than 10,000 USD worse off.”

Based on United Nations report World Population Prospects: The 2015 Revision, 2015, which cites current world population of 7.3 billion and projected world population in 2050 of 9.7 billion.

Think Globally
Act Locally

Las Vegas, Reno and Nevada is a small part of our World
We must be partners and communicate with each other if we are to solve the problem of antibiotic resistance.
Inter-Facility Infection Control Transfer Form

- Communication tool
- Clear, concise information
- Facility to facility, as well as within a facility
- Improves patient care
- Decreased potential for patient harm
- Three main viewpoints:
  - Sepsis
  - Antimicrobial Stewardship
  - Infection Prevention

69% of clinicians feel patient care is often delayed while waiting for important information about the patient.

https://www.cdc.gov/hai/pdfs/toolkits/InfectionControlTransferFormExample1.pdf
Inter-facility Transfer Form

This is available on the NVASP.net webpage under FORMS
South Dakota Inter-facility Infection Control Transfer Form

Please use this form when transferring a patient with Carbapenem-resistant Enterobacteriaceae (CRE)

This form must be filled out for transfer to accepting facility with information communicated prior to or with transfer. Please attach copies of latest culture reports with susceptibilities if available.

Sending Healthcare Facility:

<table>
<thead>
<tr>
<th>Patient/Resident Last Name</th>
<th>First Name</th>
<th>Date of Birth</th>
<th>Medical Record No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name/Address of Sending Facility</th>
<th>Sending Unit</th>
<th>Sending Facility Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sending Facility Contacts</th>
<th>Name</th>
<th>Phone</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Manager/Admin/SW</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infection Prevention</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is the patient currently in isolation?</th>
<th>□ No</th>
<th>□ Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of isolation (check all that apply)</td>
<td>□ Contact</td>
<td>□ Droplet</td>
</tr>
</tbody>
</table>

Does the patient currently have an infection, colonization OR a history of positive culture of a multidrug-resistant organism (MDRO) or other organism of epidemiological significance?

<table>
<thead>
<tr>
<th>Carbapenem-resistant Enterobacteriaceae (CRE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clostridium difficile (Cd iff)</td>
</tr>
<tr>
<td>Methicillin-resistant Staphylococcus aureus (MRSA)</td>
</tr>
<tr>
<td>Vancomycin-resistant Entrococci (VRE)</td>
</tr>
<tr>
<td>Acinetobacter (Multi-drug resistant)</td>
</tr>
<tr>
<td>E coli, Klebsiella, Proteus etc. w/Extended Spectrum B-Lactamase (ESBL)</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa (CRE ESBL)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Does the patient/resident currently have any of the following?</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Cough or requires suctioning</td>
</tr>
<tr>
<td>□ Diarrhea</td>
</tr>
<tr>
<td>□ Vomiting</td>
</tr>
<tr>
<td>□ Incontinent of urine or stool</td>
</tr>
<tr>
<td>□ Open wounds or wounds requiring dressing change</td>
</tr>
<tr>
<td>□ Drainage (source) ____________</td>
</tr>
<tr>
<td>□ Central line/PICC (Approx. date inserted <strong>/</strong>/____)</td>
</tr>
<tr>
<td>□ Hemodialysis catheter</td>
</tr>
<tr>
<td>□ Urinary catheter (Approx. date inserted <strong>/</strong>/____)</td>
</tr>
<tr>
<td>□ Suprapubic catheter</td>
</tr>
<tr>
<td>□ Percutaneous gastrostomy tube</td>
</tr>
<tr>
<td>□ Tracheostomy</td>
</tr>
</tbody>
</table>

Printed Name of Person completing form

<table>
<thead>
<tr>
<th>Printed Name of Person completing form</th>
<th>Signature</th>
<th>Date</th>
<th>If information communicated prior to transfer: Name &amp; phone of individual at receiving facility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
LOS ANGELES COUNTY
HEALTHCARE FACILITY TRANSFER FORM

Please use this form for ALL transfers to admitting facility.
This form is NOT meant to be used as criteria for admission.

<table>
<thead>
<tr>
<th>Patient Name (Last, First):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Birth:</td>
</tr>
<tr>
<td>MRN:</td>
</tr>
<tr>
<td>Transfer Date:</td>
</tr>
<tr>
<td>Receiving Facility Name:</td>
</tr>
</tbody>
</table>

Currently in Isolation Precautions? □ Yes
If Yes, check:
□ Contact  □ Droplet  □ Airborne

Check all PPE (personal protective equipment) to be considered:

<table>
<thead>
<tr>
<th>Currently in Isolation Precautions?</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ No isolation precautions</td>
</tr>
</tbody>
</table>

Does the patient have any MDROs (multi-drug resistant organisms) or other lab results for which the patient should be in isolation? Please include any infection, colonization, history, or “rule-out” communicable diseases.

<table>
<thead>
<tr>
<th>Organisms</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. difficile</td>
<td></td>
</tr>
<tr>
<td>CRE (Carbapenem-resistant Enterobacteriaceae such as: Klebsiella, Enterobacter or E. coli)</td>
<td></td>
</tr>
<tr>
<td>MDR gram negatives (such as: Acinetobacter, Pseudomonas, etc.)</td>
<td></td>
</tr>
<tr>
<td>ESBL (extended-spectrum beta lactam resistant such as: E. coli, Klebsiella)</td>
<td></td>
</tr>
<tr>
<td>VRE (vancomycin-resistant Enterococcus)</td>
<td></td>
</tr>
<tr>
<td>MRSA (methicillin-resistant Staphylococcus aureus)</td>
<td></td>
</tr>
<tr>
<td>Other: __________________________________________________________________</td>
<td></td>
</tr>
<tr>
<td>Such as: lice, scabies, disseminated shingles, norovirus, flu, TB, etc.</td>
<td></td>
</tr>
</tbody>
</table>

Check Yes for MDRO or communicable disease & include date of specimen, if known.

□ No known MDRO or communicable diseases

Please include lab results with antimicrobial susceptibilities, medication documentation with antibiotic therapy end dates, and any additional info.

CONTACT INFORMATION

Sending Facility Name:
UTAH INFECTION CONTROL TRANSFER FORM
(Discharging Facility to complete form and communicate information to Receiving Facility)

Demographics

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Date of Birth</th>
<th>MRN</th>
<th>Discharge Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sending Facility Name: ___________________________
Contact Name: ___________________________
Contact Phone: ___________________________

Receiving Facility Name: ___________________________

Precautions

Currently in Isolation Precautions?  □ Yes  □ No
If Yes check: □ Contact  □ Droplet  □ Airborne  □ Other: ___________________________

Organisms

Did or does have (send documentation): ___________________________

- Multiple Drug Resistant Organism (MDRO):
  - MRSA □
  - VRE □
  - Acinetobacter not susceptible to carbapenems □
  - E. coli or Klebsiella not susceptible to carbapenems □

- Significant communicable disease: □ Yes
  - C. diff □
  - Other*: ___________________________ (current or ruling out)
*Additional info if known:
*Note: Appropriate PPE required ONLY if incontinent/drainage/rash not contained

Symptoms

- □ Cough/uncontrolled respiratory secretions
- □ Incontinent of urine
- □ Vomiting
- □ Acute diarrhea or incontinent of stool
- □ Draining wounds
- □ Other uncontained body fluid/drainage
- □ Concerning rash (e.g.; vesicular)
- □ Symptoms or PPE not required as "contained"

Required PPE

- □ Gloves
- □ Mask
- □ Isolation Precautions

ANY YES: Check Required PPE

Answers to sections above

ALL NO: Just sign form

Person completing form: ___________________________
Role: ___________________________
Date ______/_____/______

Version 1.0 - 4/23/2014 - e.version
Los Angeles and South Dakota
Breaking Down the Barriers
What are your Organizational Barriers to Communication?

(1) hospital-nursing home affiliations, pharmacy or laboratory agreements, cross-site staff visits, and cross-site physician care;
(2) hospital size, teaching status, and frequency of geriatrics specialty care;
(3) nursing home size, location, type, staffing, and Medicare quality indicators; and
(4) hospital-to-nursing home communication, consistency of hospital care with health care goals, and communication quality improvement efforts.
The most frequently reported perceived barriers to communication were

1) sudden or unplanned transfers (44.4%),
2) transfers that occur at night or on the weekend (41.4%),
3) hospital providers' lack of effort (51.0%), lack of familiarity with patients (45.0%), and lack of time (43.5%). Increased hospital size, teaching hospitals, and urban nursing home location were associated with greater perceived importance of these barriers, and
4) cross-site staff visits and hospital provision of laboratory and pharmacy services to the nursing home were associated with lower perceived importance of these barriers.
Lack of patient information is a particular problem when a patient is transferred from one health care facility to another. The lack of information needed to develop a timely and effective plan of care for an older adult transferred to the nursing home facility may exacerbate disruptions in the older adult's care. Also, adjustment or readjustment to the nursing home or hospital environment may be prolonged. Persistence of problems or difficulty in adjustment may then lead to exacerbation of the disease processes and, ultimately, hospital readmissions. Evidence suggests that elderly patients discharged from the hospital have high readmission rates. Although the patient is most affected by a breakdown in communication, everyone in the nursing home involved in the resident's care is also affected. All staff who provide care to the resident, including nursing, medicine, nutrition, pharmacy, social work, and physical therapy staff members, must be cognizant of issues related to communication for patients being transferred. In this article, the authors discuss the development, implementation, and results of a model designed to increase the communication surrounding the transition of elderly patients from an inpatient unit to and from nursing homes.
Factors associated with potentially preventable hospitalization in nursing home residents in New York State: a survey of directors of nursing.

CONCLUSION:

Efficient and effective care depends on continuity of communication between nurses and physicians and adequate access to patients' medical history, laboratory results, and ECGs.

https://www.ncbi.nlm.nih.gov/pubmed/20406315
The Three Legged Stool

Healthcare Facilities

Healthcare Workers

Patients and their families
Following up on recommendations made at the time of a hospital discharge is important to patient safety. While data is lacking, specifically around the transition of patient to nursing home, it has been postulated that missed items such as laboratory tests may result in adverse patient outcomes. To determine the extent of this problem, a retrospective cohort study of subjects discharged from an academic medical center and admitted to nursing homes (NH) was followed to determine the type of discharge recommendations and the rate of completion. In addition, for the purpose of generalizability, the 30-day hospital readmission rate was calculated. Recommendations were made on 51 subjects. Almost a quarter of the recommendations made by the hospital discharging team were not acted upon. Furthermore, for the majority of those recommendations that were not acted upon, a reason could not be determined. In concert with national data, 20% of the subjects returned to the hospital within 30 days. Further investigation is warranted to determine if an association exists between missed recommendations and hospital readmission from the nursing home setting.
In addition, the 30-day hospital readmission rate was calculated. Recommendations were made on 51 subjects. Almost a quarter of the recommendations made by the hospital discharging team were not acted upon. In concert with national data, 20% returned to the hospital within 30 days.

Cubist Annual Total Net Revenues
We Estimate Peak Year Sales of CUBICIN will surpass $1B in the U.S

GAAP (unaudited)

>1,500,000 Patients Treated with CUBICIN (estimated) as of 6/30/12

CAGR 41% (2004 - 2011)

<table>
<thead>
<tr>
<th>Year</th>
<th>Dollars in millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>$3.7</td>
</tr>
<tr>
<td>2004</td>
<td>$68.1</td>
</tr>
<tr>
<td>2005</td>
<td>$120.6</td>
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<tr>
<td>2006</td>
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<tr>
<td>2007</td>
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<td>2008</td>
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<tr>
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</tr>
<tr>
<td>2010</td>
<td>$636.4</td>
</tr>
<tr>
<td>2011</td>
<td>$754.0</td>
</tr>
</tbody>
</table>

CUBICIN U.S. Net Revenues
Other Net Revenues
CUBICIN: On Historic Path to Blockbuster Status

We estimate peak year sales for CUBICIN will surpass $1 Billion in the U.S.

Cumulative Sales of U.S. I.V. Antibiotics Post Launch

$3,604 M CUBICIN Gross Sales in First 104 Months (through 2Q12)

Source: ICS Gross orders for CUBICIN, IMS Gross Sales for other products
NV ASP Nevada Antimicrobial Stewardship Program

www.NVASP.NET

Our Goal
To reduce inappropriate use and overuse of antibiotics in hospitals, long term and home health care

EVOLUTION OF ANTIBIOTICS

Misuse Yesterday + Resistance Today

= No Choices Tomorrow
“This program is designed to cover a variety of topics related to the evolution of antibiotics and how we can change the future with responsible distribution.”
“The damaging effects of antimicrobial resistance (AMR) are already manifesting themselves across the world. Antimicrobial-resistant infections currently claim at least 50,000 lives each year across Europe and the US alone, with many hundreds of thousands more dying in other areas of the world. But reliable estimates of the true burden are scarce.”

http://amr-review.org/
“Based on scenarios of rising drug resistance for six pathogens to 2050, we estimated that unless action is taken, the burden of deaths from AMR could balloon to 10 million lives each year by 2050, at a cumulative cost to global economic output of 100 trillion USD. On this basis, by 2050, the death toll could be a staggering one person every three seconds and each person in the world today will be more than 10,000 USD worse off.”

Based on United Nations report World Population Prospects: The 2015 Revision, 2015, which cites current world population of 7.3 billion and projected world population in 2050 of 9.7 billion.

Inter-facility Transfer Form

<table>
<thead>
<tr>
<th>Name/Address of Sending Facility</th>
<th>Sending Unit</th>
<th>Phone</th>
<th>Phone</th>
<th>Fax #</th>
</tr>
</thead>
</table>

**Sending Facility Contacts**

- **Name**: __________
- **Phone**: __________
- **Fax #**: __________

**Case Manager/Admin/SW**

**Infection Prevention**

**Attending Physician:**

**Infectious Disease Physician:**

- Is the patient currently in transmission based precautions (TBP)?
  - [ ] NO
  - [ ] YES

- Type of TBP (check all that apply)
  - [ ] Contact
  - [ ] Droplet
  - [ ] Airborne
  - [ ] Other: __________

- Current or previous diagnosis of Sepsis?
  - [ ] NO
  - [ ] YES

- Approx date: __________

- Does patient currently have any of the following?
  
  - [ ] Methicillin-resistant Staphylococcus aureus (MRSA)
  - [ ] Vancomycin-resistant Enterococcus (VRE)
  - [ ] Clostridium difficile (C Diff)
  - [ ] Acinetobacter, multidrug-resistant
  - [ ] E.coli, Klebsiella, Proteus etc. w/ Extended Spectrum B-Lactamase (ESBL/MDRO)
  - [ ] Carbapenem-resistant Enterobacteriaceae (CRE) or Pseudomonas
  - [ ] Other: __________

- Does the patient currently have an infection, colonization or history of positive culture of a multidrug-resistant organism (MDRO) or other organism of epidemiological significance?

- Active Infection on treatment Check if YES

- Colonization or history Check if YES

- Source

**Does the patient currently have any of the following?**

- [ ] Cough or requires suctioning
- [ ] Diarrhea
- [ ] Vomiting
- [ ] Incontinence of urine or stool
- [ ] Drainage (source) __________
- [ ] Tracheostomy __________
- [ ] Surgery in the last 90 days __________
- [ ] Chest x ray within the last 30 days (Required for ECF Bed only) __________

- [ ] Has the patient ever been diagnosed with active or latent TB?
  - [ ] NO
  - [ ] YES

- [ ] Central Inv/IVC/Port a Cath (Approx date inserted __________) Indication:

- [ ] Hemodialysis catheter/Shunt (Approx date inserted __________) Indication:

- [ ] Urinary catheter (Approx date inserted __________) Indication:

- [ ] Suprapubic catheter

- [ ] Percutaneous gastrostomy tube

- [ ] Open wounds or wounds requiring dressing change

- [ ] Condition of incision: __________

**Is the patient currently on antimicrobial agents?**

- [ ] NO
- [ ] YES

**Antimicrobial agent and dose**

**Treatment for:**

**Start Date**

**Anticipated Stop Date**

**Pneumococcal Vaccine**

- Month/Year administered: __________

**Influenza Vaccine**

- Month/Year administered: __________

**Name and phone number of individual at receiving facility**

**Person completing form at time of transfer**

**Date/Time**