Implementing a Mandatory Medical Center Influenza Immunization Program: The Virginia Mason Story

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Virginia Mason Medical Center
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Virginia Mason Health System

• Main clinic and hospital in Seattle
• Multi-specialty group practice
  480 physicians
  5000 FTEs
• More than 1 million outpatient visits per year
• 16,000 inpatient admissions per year
• 336-bed tertiary care hospital

Virginia Mason Medical Center Strategic Plan

Program Priorities: Cancer and Cardiovascular Services

Foundational Elements:

- Clinical Excellence and Scientific Discovery
- Patient-Centered Care
- Population Health Management
- Value-based Delivery

Virginia Mason Production System

Strategies:

- Technology
- Innovation
- People
- Service
- Quality
- Cost

Our Mission: Improving the health and well-being of our patients, the community and ourselves

Our Vision: The Virginia Mason Way
Virginia Mason Production System (VMPS)
In 2002 we adopted the Toyota Production System philosophies and practices and applied them to healthcare:
- Customer first
- Highest quality
- Obsession with safety
- Highest staff satisfaction
- A successful economic enterprise

Rapid Process Improvement Workshop: A VMPS Tool
- 7-10 staff off line for 5 days (MD, nurse, MA, managers, others)
- Patient on the team when possible
- Take a process and reengineer, using cycles of plan, do, check, act. Improved process should be:
  - Patient centered
  - Have waste and waits eliminated

VMMC Policy: How it came about
- In the summer of 2004 we ran three RPIW workshops looking at ways to improve our delivery of flu shots to patients and to staff.
- After reviewing the literature two things were clear:
  - Immunizing health care workers can result in a safer environment for patients.
  - Voluntary programs to immunize health care workers by and large had not been effective.

Why Mandatory??
How do deaths due to vaccine-preventable diseases stack up?
Deaths Due to Vaccine Preventable Diseases – U.S., 1989-1998

<table>
<thead>
<tr>
<th>Disease</th>
<th>Cases</th>
<th>Deaths (all ages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza</td>
<td>About 510,000</td>
<td></td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>About 120,000</td>
<td></td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>282,650</td>
<td>1013</td>
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<tr>
<td>Hepatitis B</td>
<td>146,644</td>
<td>3024</td>
</tr>
<tr>
<td>Measles</td>
<td>60,189</td>
<td>132</td>
</tr>
<tr>
<td>Mumps</td>
<td>4,075</td>
<td>7</td>
</tr>
<tr>
<td>Rubella</td>
<td>44,12</td>
<td>21</td>
</tr>
<tr>
<td>Polio</td>
<td>52,634</td>
<td>61</td>
</tr>
<tr>
<td>Tetanus</td>
<td>4,866</td>
<td>17</td>
</tr>
</tbody>
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What We Know: Health Care Worker Immunization Rates are Low

- Immunization rate of health care workers in the United States: 38 to 40 percent
- Immunization rate of VMMC staff prior to the policy implementation: 30-50% range
  - 2002-38%
  - 2003-54%
  - 2004-30% (year of vaccine shortage)

Not good enough!!

As a Result of the Workshops and Reviewing the Data

- VMMC did not feel that 30-50 percent rate of health care worker immunization was good enough.
- Actions:
  - Annual respiratory campaign for staff
  - Influenza immunization policy for staff
    - Policy approved by the Management Committee and Board in August 2004

Policy: Two Questions We Struggled With

- Who to include?
  - Decision: Everyone
- Should we allow a signed declination?
  - Decision: No
Fitness For Duty

- Policy is inclusive
  - All outside contractors, vendors, volunteers, students and community providers
  - As a result, > 1000 additional vaccinations provided through Employee Health

VMMC Immunization Requirement Accommodations

- Staff can request an accommodation on religious or medical grounds.
- If approved, staff must wear a mask at work during the influenza season.
- Requests for accommodation are evaluated on a case-by-case basis in consultation with Employee Health, Human Resources, the Medical Director of the VM Infectious Disease Department and the Chief of Medicine.

Other Alternatives to Influenza Vaccine?

VMMC Influenza Immunization Policy for Staff

- Staff who were not immunized by a set date received notices:
  - Assigned an online education module to complete
  - Further education and one-on-one discussions
  - Influenza website established for staff with links
- No vaccination by the deadline can result in termination.
Multidisciplinary Flu Team

• Composition
  – Sponsors: Senior Vice President (RN) and Deputy Chief of Medicine (MD)
  – Employee Health, Pharmacy, Infectious Disease, MD, RNs, MAs, Managers from hospital, clinic and satellite clinics, Communications, HR, Phone call center, Education, Legal

2004-2005 Influenza Season

• Policy approved in 8/2004
• Education Campaign started
• Vaccine shortage put policy on hold for 2004-2005
• Team refocused and worked on Respiratory Etiquette campaign and Influenza Education

2004-2005 Respiratory Etiquette Campaign

• Slogan: Cover your cough, Clean your hands
• Educational forums
• Respiratory Quizzes with Prizes for Staff
• Booth staffed by team with information and give aways (tissue, hand sanitizer, candy)
• Respiratory Kiosks for patients
2005-2006 Influenza Season

- Started early (spring for fall campaign)
- Met regularly (weekly by late summer)
- Developed timeline
- Listened to staff and management input
- Redesigned campaign using harvested information

Educational Issues – Debunking the Myths

- Addressed in multiple different ways
- Q and A Sessions with Staff
- Internal Web Site with Q and A, Educational Power Points, Links to CDC and other sites
- Grand Rounds with outside speakers on influenza immunization and on the bioethics of requiring immunizations
- Compelling staff stories
- Internal video developed
- One on one information sharing with flu champions
- On line educational module
- Quizzes with prizes for participation

Flu Vaccination – A Moral Responsibility for Nurses?

Nurses weigh the risks and benefits

Jodi Beckman Friedson, RN, MS

In 2004, Virginia Mason Medical Center in Seattle notified all hospital staff, including 4,700 nurses, that they must be vaccinated against the flu or face termination. The rationale behind this mandate? Hospital leaders hoped mass flu shot administration would decrease staff absenteeism and reduce flu-related complications and death among patients. Influenza is the sixth leading cause of death in the U.S., killing approximately some nurses like Wendy McHugh, RN, MS, clinical nurse specialist at Beth Israel Deaconess Medical Center in Boston, say it’s reasonable to assert that clinical nurses have the moral responsibility to receive the flu vaccine as a way to prevent or minimize harm to patients. But just how do ethics professionals come to this conclusion? It helps to first understand some of the principles on which nurses ethics evaluators are based.
Debunking the Myths: “I got sicker from the vaccine than when I actually got the flu”

NEJM 345:159; 2001

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>VACCINE</th>
<th>PLACEBO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhinitis</td>
<td>44.8%</td>
<td>45%</td>
</tr>
<tr>
<td>Sore throat</td>
<td>28.3</td>
<td>28.7</td>
</tr>
<tr>
<td>Cough</td>
<td>46.1</td>
<td>45.7</td>
</tr>
<tr>
<td>Headache</td>
<td>39.6</td>
<td>37.8</td>
</tr>
<tr>
<td>Myalgia</td>
<td>25.1</td>
<td>20.8</td>
</tr>
<tr>
<td>Chills</td>
<td>12.2</td>
<td>11.1</td>
</tr>
<tr>
<td>Fever</td>
<td>5.1</td>
<td>5.0</td>
</tr>
<tr>
<td>Fatigue</td>
<td>27.9</td>
<td>28.6</td>
</tr>
</tbody>
</table>

Debunking the Myths: What about egg allergy and reactions to flu vaccine?

- Prevalence of egg allergy in adults is less than 0.13%
- Negative skin test to egg: vaccine can be given safely
- Positive skin test to egg, negative skin test to vaccine: vaccine can be given safely
- Partnership with A & A clinic to test employees free of charge

Influenza Immunization Campaign: Making it Fun

- Slogan Contest with “fabulous prizes”
- Tailgate Kickoff Party for staff
  - Food, prizes, immunization bracelets/lanyards
  - Immunizations by celebrity shooters
- Partner with Seahawks (local football team)

2005-06 Flu Season Campaign Slogan Contest

“Save Lives - Immunize”

Teri Rasmussen
Save Lives – Immunize

Influenza Campaign

- Press releases, letters to the editor, interviews regarding the groundbreaking work
- Coupled to Patient Campaign
  - One of the first drive through flu immunization clinics in the Pacific Northwest, televised on local TV program

Influenza Campaign: Active Support at All Levels of Leadership

- Campaign Briefings occurred regularly at multiple leadership meetings
  - Monthly Managers Meetings
  - In Patient and Out Patient Nursing Meetings
  - Physician Section Head Meetings
  - Professional Staff Meetings
  - Management Committee Meetings
  - CEO and President 100% supportive
Drive Through Flu Clinic
Lessons Learned - Flexibility
Provide Options
- LAIV and TIV both offered when available (1000 LAIV given in 2005 when TIV vaccine delivery delayed)
- Thimerosal free vaccine offered
- Offsite injections ok (provide proof)
- Reimbursement plan

Non-VM Medical Staff: Learnings
- Policy must be the same
- Support from outside leadership
- Consequences: suspension of privileges through credentialing
- Need to communicate early and often and have a clear timeline
  - Make sure have adequate contact numbers (e-mail, phone and pager numbers)

Biggest Challenges
- Debunking long held myths
- Religious/Medical Accommodations
- Dealing with the disgruntled few
- Knowing when to “end” the flu season
- Keeping up with the “usual” work while managing the immunization and documentation of 5000+ staff

Challenges cont…Accessibility
- Mobile carts (on all shifts)
- Extended hours for Employee Health
- Peer vaccinators
- Employees could be seen in “patient” clinics
Education Coupled with a Clear Policy: How Are We Doing?

• 2005-2006 Flu Season
  - 100% compliance
    • 98% through immunization
    • 2% through infection control measures

• 2006-2007 Flu Season
  - 100% compliance
    • 98.5% through immunization
    • 1.5% through infection control measures

“There are risks and costs to a program of action. But they are far less than the long-range risks and costs of comfortable inaction.”
- John F. Kennedy

Unionized Hospital Nurses: The Current Situation

• Immunization Requirement: Grievance Filed
  - Arbitrator’s decision that requirement be bargained under collective bargaining agreement on appeal to Federal court of Appeals, hearing scheduled for 11-6-07

• Infection Control Requirement: Unfair Labor Practice Charge filed
  - NLRB Judge rules that VM can require nurses to wear masks as part of the infection control policy. Judge determines that this is a matter within employer’s rights and not a required subject of bargaining

Greatest Rewards

• Vaccine success rate
• Being part of a ground breaking team effort.
Protecting Our Patients, Our Families and Our Community

Virginia Mason’s Flu Team
Winner of the Outstanding Team Award 2005

Immunization Excellence Award 2006 - Healthcare Worker Campaign
- On behalf of the National Influenza Vaccine Summit I am pleased to inform you that Virginia Mason Medical Center has been selected to be the first recipient of the National Influenza Vaccine Summit Immunization Excellence Award – Healthcare Worker Campaign. Your submission was selected based upon the project’s success in increasing immunization rates among healthcare workers and other individuals affiliated with your facility, as well as creative approaches to overcome barriers.

“If you are dreaming about it… you can do it.”
Chihiro Nakao, Chairman and CEO
Shingjutsu International
November 4, 2003
References


References

- Martinello RA, Jones L, Topal JE. Correlation between healthcare workers' knowledge of influenza vaccine and vaccine receipt. Infect Control Hosp Epidemiol 2003; 24: 845-847.m

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