



OREGON

QUARTERLY REPORT

Marion County Health Department
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1st Quarter
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To report a communicable disease:

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Vital Statistics Quarter Ending: March 2002	1st Quarter 2002	2001	Year to Date 2002	2001
<u>BIRTHS</u> TOTAL DELIVERIES	1207	1198	1207	1198
Delivery in Hospital	1195	1149	1195	1149
Teen Deliveries (10-17)	61	49	61	49
<u>DEATHS</u> TOTAL	727	643	727	643
Medical Investigation	69	44	69	44
Homicide	04	03	04	03
Suicide	11	09	11	09
Accident – MVA	02	05	02	05
Accident – Other	16	07	16	07
Natural / Undetermined / Pending	36	20	36	20
Non-Medical Investigation (all natural)	658	599	658	599
Infant Deaths	0	05	0	05
Fetal Deaths	02	03	02	03
<u>COMMUNICABLE DISEASES</u> E-Coli: 0157	06	0	06	0
Hepatitis A	03	05	03	05
Acute Hepatitis B	07	07	07	07
Chronic Hepatitis B	15	08	15	08
Meningococcus	01	05	01	05
Pertussis	02	02	02	02
Tuberculosis	02	04	02	04
<u>SEXUALLY TRANSMITTED DISEASE</u> PID (Pelvic inflammatory Disease)	03	11	03	11
Chlamydia	186	175	186	175
Gonorrhea	19	09	19	09
AIDS	05	01	05	01
HIV Positive	17	N/A	17	N/A

Karen Landers MD MPH
Marion County Health Officer

Antimicrobial Resistance: Back to the Future?

In the 1940's the availability of penicillin and the subsequent discovery of streptomycin led to a dramatic reduction in illness and death from infectious diseases.

However, bacteria and other disease-causing organisms have the ability to mutate and acquire resistance genes from other organisms, and as a result develop resistance to antibiotics.

When an antimicrobial drug is used, the selective pressure exerted by the drug favors the growth of organisms that are resistant to the drug's action. Examples of clinically important microbes that are rapidly developing resistance to available antimicrobials include bacteria that cause pneumonia, ear infections, and meningitis (e.g. *Streptococcus pneumoniae*), skin, bone, lung and bloodstream infections

(e.g. *Staphylococcus aureus*), urinary tract infections (e.g. *Escherichia coli*), foodborne infections (e.g. *Salmonella*), and infections transmitted in health care settings

(e.g. enterococci and *Klebsiella* spp.).

Other disease-causing organisms such as the bacteria that cause tuberculosis and gonorrhea, and the parasites that cause malaria are also becoming resistant to standard medical therapy. If steps are not taken, to address the problem of antibiotic resistance, reliable treatment for infections may be lost. Drug choices for the treatment of common infections will become limited and in some cases nonexistent.

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According to the Centers for Disease Control and Prevention (CDC), an estimated two million people in this country acquire infections as a result of receiving care in a hospital annually. Overall, 70% of the bacteria causing such infections are resistant to at least one of the drugs commonly used to treat these bacteria. The cost of treating antimicrobial resistant germs places a significant burden on society. Individuals infected with drug resistant organisms are more likely to be hospitalized, remain in the hospital for a longer time, and have a poor prognosis. It has been estimated that the costs of hospital-acquired infections caused by just six kinds of resistant bacteria are at least \$1.3 billion per year. This does not include costs of lost workdays, post-hospital care, or resistant infections in outpatient or extended care facility settings.

The CDC in partnership with many other health care agencies including the World Health Organization, Food and Drug Administration (FDA), U.S. Dept of Agriculture (USDA), the National Institutes of Health (NIH), Dept. of Veterans Affairs (DVA), hospitals, professional medical organizations, and state departments of health is promoting a broad-based plan to address the problem of emerging antibiotic resistance. The four key strategies of the plan include: 1) preventing infection, 2) diagnosing and treating infection effectively, 3) using antibiotics wisely, and 4) preventing transmission of drug-resistant pathogens. Health care providers and persons receiving care for an illness have important roles to play in preventing the development of antibiotic resistance.

FOR THE PATIENT:

1. Ask whether an antibiotic is likely to be beneficial for your illness.
2. Ask what else you can do to feel better sooner.
3. DO NOT take an antibiotic for a viral infection like a cold or the flu.
4. Take an antibiotic exactly as instructed by your doctor or health care provider and take the medicine for the length of time prescribed.
5. DO NOT save some of your antibiotic for the next time you get sick.
6. DO NOT take an antibiotic that is prescribed for someone else.
7. Get vaccinated to prevent illnesses like the flu and make sure your children are completely vaccinated to protect them from preventable childhood viral and bacterial illnesses.

FOR THE HEALTH CARE PROVIDER

1. Vaccinate at-risk patients for influenza and *S. pneumoniae*.
2. Remove catheters when no longer essential.
3. Culture the patient and target antibiotic therapy to identified pathogens.
4. Consult infectious disease experts for serious infections.
5. Engage in antimicrobial control; get involved in local appropriate-use antimicrobial programs.
6. Use local data: 1) know your antibiogram, 2) know your formulary, 3) know your patient population.
7. Treat infection, not contamination: avoid culturing vascular catheter tips or culturing through temporary vascular catheters.
8. Treat infection not colonization: i.e. treat pneumonia not tracheal aspirate, treat bacteremia not catheter tip or hub.
9. Know when to say "no" to vanco(mycin): treat staphylococcal infection not contaminants or colonization.
10. Stop antimicrobial treatment when: 1) infection is treated, 2) infection is not diagnosed, or 3) infection is unlikely.
11. Isolate the pathogen: 1) use standard infection control precautions, 2) contain infectious body fluids (using appropriate airborne, droplet, or contact precautions), and 3) consult infection control experts with questions.
12. Break the chain of contagion:
WASH YOUR HANDS!! and stay home when ill.

For more information on the national plan to prevent emerging antibiotic resistance, check out the CDC web site at www.cdc.gov/drugresistance/healthcare.