Reducing antibiotic prescription through dedicated and long-term work at national and local levels

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Stockholm county council
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Strama

The Swedish strategic programme against antibiotic resistance

Works to preserve antibiotics as powerful drugs since 1995
Strama-groups on national and local levels

Stockholm
Strama Stockholm

- 2 Specialists in Family Medicine
- 1 Infectious Disease specialist
- 1 Pharmacist
- 1 Nurse
Antibiotic prescriptions per 1000 inhabitants and year per county in Sweden 2007, 2012 and 2017

Swedish eHealth Agency

National target: 250

- 30 %

*J01 excl metenamin
Modern health care at stake
Few new antibiotics in pipeline...
Never antibiotics without a good reason!

- Antibiotic resistance
- Disturbance of microbiota
- Cost
- Side effects

- Reduce symptoms/complications
- Save lives
Many antibiotics on the list of environmentally hazardous pharmaceuticals

<table>
<thead>
<tr>
<th>Substance</th>
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<tbody>
<tr>
<td>amoxicillin</td>
<td>glibenclamide</td>
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<tr>
<td>azithromycin</td>
<td>haloperidol</td>
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<tr>
<td>ciprofloxacin</td>
<td>irbesartan</td>
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<tr>
<td>citalopram/escitalopram</td>
<td>levonorgestrel</td>
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<tr>
<td>clarithromycin</td>
<td>meclozine</td>
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<tr>
<td>diazepam</td>
<td>oxazepam</td>
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<tr>
<td>diclofenac</td>
<td>risperidone</td>
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<tr>
<td>erythromycin</td>
<td>roxithromycin</td>
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<tr>
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<td>sertraline</td>
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<td>tetracycline</td>
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<td>trimethoprim</td>
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<tr>
<td>fluoxetine</td>
<td>venlafaxine</td>
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<td>flupentixol</td>
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Stockholm County Council 2018
Antibiotic resistance

Use of antibiotics

Spread of resistant bacteria
Proportion *E. coli* resistant to Third-generation cephalosporins in 2007 and 2017

Source: ECDC
Proportion MRSA of all *S. aureus* in 2007 and 2017

Source: ECDC
So what does Strama do?
So what does Strama do?

1. Provides guidelines for treatment of common infections
National guidelines from Strama, the Public Health Agency and the Medical Products Agency

Primary care
For smartphones

Hospital care

Primary care
www.stramastockholm.se

On the web!
So what does Strama do?

2. Educates doctors, nurses and other health care workers.
Visiting care units for short seminars with feedback on their own prescription
Benchmark!

29 Primary Health Care Centers: Patients with Tonsillitis
- adherence to guidelines 2017

Strama Stockholm (N = number of patients with tonsillitis given antibiotics)

Target: 80 %
E-learnings for health care professionals
www.antibiotikasmart.se

Facts and case based quiz - antibiotics/infections

- Primary care
- Hospital care
- Dental care
Treating wounds – (www.sarsmart.se) antibiotics are overused

Quiz!
So what does Strama do?

3. Provides and/or distributes information directed to patients/parents/the public
"Less antibiotics, more of your own defense"

Local campaign in Stockholm
Brochure sent to 7 year olds

Fun facts about bacteria, viruses, vaccines and common cold
Leaflets from the Public Health Agency

ADVICE AND FACTS ABOUT ANTIBIOTICS AND INFECTIONS

Are you suffering from a chest cold?

Bronchitis, also known as chest cold, is an inflammation of the main passages of the lungs. The mucus membranes in the airways from the throat to the lungs swell and become irritated. Coughing, the most common symptom, lasts for an average of three weeks. You may also have a fever, sore throat and runny nose.

Bronchitis is usually caused by a virus or occasionally by bacteria and it normally goes away on its own. Although annoying at times, coughing is the body’s way of protecting the lungs. By coughing, the body gets rid of phlegm that would otherwise collect in lung tissue and cause more serious problems. Phlegm and expectoration also serve as a barrier that keeps inhaled dust, bacteria and viruses. Because coughing is a protective mechanism, it will probably be the last symptom to go away before you fully recover. The irritation of the airways lasts deeply, and this is also a reason for the prolonged period of coughing.

Antibiotic therapy
If you have healthy lungs, bronchitis does not require antibiotic therapy. Even if your illness is due to a common type of bacteria or mycoplasma, antibiotics won’t speed up your recovery despite the fact that antibiotics are intended to fight bacteria rather than viruses.

Taking antibiotics when you aren’t needed is a bad idea since they also affect the “good” bacteria in your body. Antibiotics can also have side effects, such as diarrhea and skin rash. The use of antibiotics can also lead to bacterial resistance, which means that antibiotics won’t have any effect when needed to fight serious infections.

However, antibiotics are sometimes necessary to treat your bronchitis if you already have another lung disease, such as chronic obstructive pulmonary disease, COPD.

Advice
- Pain relievers such as paracetamol or ibuprofen can alleviate fever and chest pain.
- Cough medicines rarely have any effect when it comes to bronchitis.
- Smoking makes the symptoms worse and increases the risk of recurrent difficulties.

What to watch for
It usually takes two to three weeks before you fully recover from bronchitis. If you feel well except for a cough, you have no need to worry, particularly if you notice a gradual recovery.

If you develop new or more severe symptoms, or if you start to cough up blood or having difficulty breathing, contact your community health centre again. If the cough doesn’t go away in 4 to 5 weeks, or if you have a recurring lingering cough several times a year, contact the health centre for a lung examination.
E-learning: www.antibiotikaellerinte.se (antibiotics or not)
Do you get better more quickly if you take antibiotics?

Antibiotics or not?  
www.antibiotikaellerinte.se

What are viruses, bacteria and resistance?
Can unnecessary use of antibiotics be harmful?
Resistant bacteria, how do they affect me?
Modern healthcare without antibiotics?

OTITIS (ear inflammation)  
Do you get better more quickly if you take antibiotics?

THROAT INFECTION  
Do you get better more quickly if you take antibiotics?

CHRONIC COUGH  
Do you get better more quickly if you take antibiotics?

SINUSITIS  
Do you get better more quickly if you take antibiotics?
Everyone has a role to play

You can help prevent antibiotic resistance

Preventing infection can reduce the use of antibiotics, and limit the spread of antibiotic resistance. Good basic hygiene is one of the most effective ways to reduce the risk of infection.
Thank you!

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www.strama.se