The Big Fight Campaign: tackling inappropriate antimicrobial prescribing in the community

Rhys Howell (Pharmaceutical Advisor)
Julie Harris (Specialist Antimicrobial Pharmacist)
Background

• Antimicrobial stewardship talks for GPs across the HB

• Targeted visits to GP Practices with poorer prescribing patterns

• Community Network targeted campaign
A Community Network focus

<table>
<thead>
<tr>
<th>Tackle High Use of Antibiotics</th>
<th>Mynd i’r Afael â Defnydd Uchel o Wrthfiotigau Yn Eich Cymuned</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Your Community</td>
<td>Hydref 2011</td>
</tr>
<tr>
<td>October 2011</td>
<td></td>
</tr>
</tbody>
</table>

**You may already know that:**
- Many common infections are caused by viruses and antibiotics do not work on viruses
- Overuse of antibiotics can lead to resistance, making them less effective when really needed
- Antibiotics can cause a range of side effects

**But, did you know that:**

**Patients in Port Talbot and the Afan Valley take more antibiotics than other areas across Wales**

**Because of this, resistance is high in your area**

- Keeping antibiotics effective is everybody’s responsibility
- We need you to help us to make sure we only use antibiotics when really needed
- If you’re worried, get advice from your GP, but don’t expect to get antibiotics for conditions like common cold, sore throat, earache and sinusitis

**Remember your community pharmacist can give you valuable advice about managing the symptoms of common illnesses**

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**Efallai eich bod eisoes yn gwybod:**
- Bod nifer o heintiau cyffredin yn cael eu hachosi gan fiyrsau a dyw gwrthfiotigau ddim yn gweithio yn erbyn fiyrsau
- Bod gordefnydd o wirthfiotigau’n gallu achosi bacteria i ddatblygu’r gallu i’w gwrthsefyll, sy’n eu gwneud yn llai effeithiol pan mae gwr angen amdanyn
- Bod gwrthfiotigau’n gallu achosi nifer o sgil-effeithiau

**Ond, oeddech chi’n gwybod:**

**Bod cleifion ym Mhort Talbot a Dyffryn Afan yn cymryd mwy o wirthfiotigau nag ardalodd erall ar draws Cymru**

**O ganlyniad i hyn, mae gallu’r bacteria i’w gwrthsefyll yn uchel yn eich hardal**

- Mae cadw gwrthfiotigau’n effeithiol yn gyfrifoldeb ar bawb
- Rydym ni angen i chi ein helpu ni i sicrhau nad ydym yn defnyddio gwrthfiotigau os nad oes gwir angen gwneud hynny
- Os ydych chi’n poeni, cymerwch gyngor gan eich Meddyg Teulu, ond peidiwch â disgwyl cael gwrthfiotigau yn erbyn cyfryrau megis annwyd, dolur gwddf, clust tost a sinwstis

**Cofiwch y gall eich fferylltydd cymunedol roi cyngor gwrthfawr i chi ynglîn â rheoli symptomau afiechydon cyffredin**
Background

- Prescribing actions based on national antimicrobial prescribing indicators incorporated into medicines management QOF actions/HB’s Prescribing Management Scheme for a number of years.

- A significant proportion of the HBs Prescribing Management Scheme 2013/14 based on national antibacterial prescribing indicators.
Background

- Effective linking into national campaigns and resources e.g. Annual European Antibiotic Awareness Day
- Resources to help manage patient expectation and demand promoted/disseminated
- Antimicrobial prescribing bulletins
- Antimicrobial prescribing intranet page
Interpretation of Laboratory Culture and Sensitivity (C+S) Test Results

- Antibiotic sensitivities are not reported in order of preference for prescribing (due to limitations of current reporting software). If there is a choice of antibiotic, choose the one which features in the guidelines.

- Where a tetracycline is indicated and sensitivity to TETRACYCLINE is reported, the tetracycline of choice is DOXYCYCLINE.

- Please provide pertinent clinical information to aid interpretation of the C+S result by the Consultant Microbiologist e.g. for a suspected UTI it would be useful to include, for example, ‘symptoms and frequency’ and the urine dip result rather than simply stating ‘UTI’.

Cephalosporins, Quinolones and Co-amoxiclav

These antibiotics are high risk for precipitating Clostridium difficile associated disease. They may also increase a patient’s risk of resistant infections in the future; therefore they should only be prescribed if one or more of the following criteria apply:

- The indication features in the antimicrobial guidelines. Indications for first-line use (either alone, in combination or as one of several first-line options) include:
  - Cephalosporins - suspected meningococcal disease, pelvic inflammatory disease (if high risk of gonorrhea);
  - Quinolones - acute prostatitis, acute pelvic inflammatory disease, proctitis, diverticulitis, pelvic inflammatory disease;
  - Co-amoxiclav - acute otitis media, upper UTI in children, diverticulitis, bladder infection, facial cellulitis and bites (human/cat/dog)

- There are also a number of indications where these antibiotics are recommended as alternatives to first-line options – see guidelines for details.

- The antibiotic has been verbally recommended by a Consultant Microbiologist.

- There is a relevant C+S result which shows sensitivity to ONLY this antibiotic.

Useful Contact Details

Advice on the diagnosis and treatment of microbial diseases may be obtained from the Public Health Wales Microbiology team. Please use the contact numbers below:

Swansea 01792 285053 or 01792 285055
Neath Port Talbot 01792 285053 or 01792 285055
Bridgend 01656 752317

Acute Sore Throat:
Do I prescribe antibiotics, or not?

- Antibiotics should not be used to secure symptomatic relief in sore throat. The Centre clinical prediction score should be used to assist the decision on whether to prescribe an antibiotic.

- Ibuprofen 400mg three times daily recommended for relief of fever, headache and throat pain in adults with sore throat. In adults who are intolerant to ibuprofen, paracetamol (1g four times daily when required) is recommended for symptom relief.

- The ABMU Health Board Primary Care Antimicrobial Guidelines include the following information on acute sore throat:

<table>
<thead>
<tr>
<th>Acute sore throat</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOLITSAN</td>
<td></td>
</tr>
<tr>
<td>Penicillin/ampicillin</td>
<td>1000mg-3000mg BD</td>
</tr>
<tr>
<td>Penicillin allergic</td>
<td></td>
</tr>
</tbody>
</table>

What is the Centre score?

The Centre criteria was developed to predict bacterial infection Group A Beta Haemolytic Streptococci (GABHS) in people with acute sore throat. The four Centre criteria are:

- Presence of tender anterior cervical lymphadenopathy or lymphadenitis.
- History of fever.
- Presence of cough.

What does the score mean?

- The presence of three or four of these clinical signs (Centre score 3 or 4) suggests that the patient may have GABHS (40–60% chance) and may benefit from antibiotics treatment.

- The absence of three or four of these signs suggests that the patient is unlikely to have an infection that will benefit from antibiotic treatment.

When no antibiotic is prescribed please consider using the ‘Antibiotic Information Leaflet for adults’ (English/Welsh)
Prescribing Tips

ABMU HB Antimicrobial Advisory Group Advice:

All patients with confirmed *Clostridium difficile* infection should be assessed using the severity matrix below and treated as per the ABMU guidance.

Fidaxomicin is a new treatment available which has been shown in studies to be more effective than vancomycin in reducing recurrences. It should be considered in patients with severe *Clostridium difficile* infection and particularly in patients with multiple co-morbidities who continue to need concomitant antibiotics. It should be considered for all patients with recurrent infections (including the first recurrence) regardless of severity. Fidaxomicin has been restricted across Wales to require Microbiology approval before prescribing; any patients who meet the above criteria should be promptly discussed with a Consultant Microbiologist.

The ABMU Medicines Management Group (MMG) has approved prescribing of fidaxomicin within Primary Care, provided it is under the direct advice of a Consultant Microbiologist.

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### Clostridium difficile Infection (CDI) Disease Severity Matrix

This Matrix should be used as part of a daily assessment by medical staff. Results to be recorded in medical notes each day. Treatment to be recorded in medical notes each day to confirm that treatment is in accordance with severity of CDI.

<table>
<thead>
<tr>
<th>Stools</th>
<th>WCC</th>
<th>Acute Rising Serum Creatinine</th>
<th>Temperature</th>
<th>Pain</th>
<th>Hypotension</th>
<th>CT or X-Ray Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild CDI</td>
<td>&lt; 3 episodes of Type 5-7 stool (using Bristol Stool Scale)</td>
<td>Not raised</td>
<td>Not raised</td>
<td>&lt; 38.5°C</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Moderate CDI</td>
<td>Between 3 to 5 episodes of Type 5-7 stool (using Bristol Stool Scale)</td>
<td>&lt; 15 x 10⁹/L</td>
<td>Not raised</td>
<td>&lt; 38.5°C</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Severe CDI (any of the following)</td>
<td>Not reliable as indicator</td>
<td>Raised</td>
<td>&gt; 50% increase over baseline</td>
<td>&gt; 38.5°C</td>
<td>Evidence of severe colitis</td>
<td>No</td>
</tr>
<tr>
<td>Life-threatening CDI</td>
<td>Not reliable as indicator</td>
<td>Raised</td>
<td>&gt; 50% increase over baseline</td>
<td>&gt; 38.5°C</td>
<td>Partial or complete ileus or toxic megacolon</td>
<td>Present</td>
</tr>
</tbody>
</table>
Primary Care Antimicrobial Guidelines

Lower Respiratory Tract Infections

**Note:** Low doses of penicillins are more likely to select out resistance. **Do not use quinolones** first-line due to poor *Pneumococcus* activity. Reserve all quinolones for proven resistant organisms. **Do not use cephalosporins** due to poor penetration of lung tissue and poor activity against some respiratory pathogens.

<table>
<thead>
<tr>
<th>Infection</th>
<th>Formulary Choice</th>
<th>Adult Dose (unless otherwise specified)</th>
<th>Duration of Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute cough, bronchitis</td>
<td><strong>ANTIBIOTICS ARE OF LITTLE BENEFIT IF THERE IS NO CO-MORBIDITY.</strong> Consider 7 day delayed antibiotic with advice. Symptom resolution can take 3 weeks. Consider immediate antibiotics if &gt; 80yr and ONE of: hospitalisation in past year, oral steroids, diabetic, congestive heart failure OR &gt; 65yrs with 2 of above.</td>
<td>No antibiotic When no antibiotic is prescribed please consider using the ‘Antibiotic Information Leaflet for Adults.’</td>
<td>5 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Amoxicillin</td>
<td>500 mg TDS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Penicillin allergy:</td>
<td>200 mg stat then 100 mg OD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doxycycline</td>
<td>200 mg stat then 100 mg OD</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Acute infective exacerbation of COPD</strong></td>
<td>5 days</td>
</tr>
<tr>
<td></td>
<td><strong>Treat exacerbations promptly with antibiotics if more purulent sputum and increased shortness of breath and/or increased sputum volume.</strong></td>
<td>Doxycycline</td>
<td>200 mg stat then 100 mg OD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If doxycycline unsuitable:</td>
<td>500 mg OD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Azithromycin</td>
<td>3 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Alternative:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Co-amoxiclav</td>
<td>625 mg TDS</td>
</tr>
</tbody>
</table>

Paper copies of this document should be kept to a minimum and checks made with the electronic version to ensure that the printed version is the most recent.
The Big Fight Campaign

Launched
23rd October 2013
The Big Fight Campaign

• **Aim:**
  - Support local GPs to promote good antimicrobial stewardship
  - Reduce inappropriate use of antibiotics by educating the public about the dangers of antibiotic resistance
  - Give advice to the public about how they can help reduce the development of antibiotic resistance in their community
The Big Fight Campaign

- Angharad Price (Communications Manager, ABMU HB)
- Alex Aubrey (Head of Prescribing and Medicines Management, Bridgend Locality, ABMU HB)
- Dr Jo Parker (Associate Medical Director for Primary Care Governance, ABMU HB)
- Julie Harris (Specialist Antimicrobial Pharmacist, ABMU HB)
- Rhys Howell (Pharmaceutical Advisor, ABMU HB)
Antibiotic Resistance

Antibiotics are used to treat infections caused by bacteria. Coughs, colds and sore throats are usually caused by viruses and antibiotics have no effect on viruses. Generally, you will get better on your own by looking after yourself. Remember to have a well-stocked medicine cabinet at home. You can also visit your local pharmacist for advice and medicines such as paracetamol and cough mixture.

- See: Surviving the cold and flu season without antibiotics
- See: Minor illness - when should I worry?
- See: How long coughs, colds, sore throats etc normally last, how to ease symptoms and when to go to GP.

Danger: We are losing the ability to fight infections and fast!

By taking antibiotics when we don’t need to, we help bacteria become stronger and more resistant to antibiotics. This means antibiotics are less effective at fighting them, in more and more cases antibiotics can’t fight them at all and the risk of people dying from bacterial infections is increasing.

What are antibiotics?
Antibiotics are very important medicines; they save lives.

Antibiotics fight infections caused by bacteria such as meningitis and pneumonia and make treatments for illnesses like cancer possible. But we are facing a very dangerous situation – Antibiotic Resistance.

What is antibiotic resistance?
Antibiotic Resistance is when an antibiotic no longer works and is not effective against infections. It is caused by the unnecessary and overuse of antibiotics. The more you use an antibiotic the greater the opportunity bacteria has to adapt and become resistant to the antibiotic enabling it to continue growing, spreading and causing serious infections.

If you continue to use antibiotics as we are the number of antibiotic resistant bacteria will increase and we will run out of antibiotics able to fight infection/kill bacteria. This means if you or a loved one has a serious life-threatening illness or condition such as meningitis or pneumonia we won’t
Pledge Poster

Antibiotics vs Resistant Bacteria
The Big Fight

...whose side are you on?

By taking antibiotics when we don’t need to we help bacteria become stronger and more resistant to antibiotics. This means bacterial infections can’t be beaten by antibiotics and the risk of people dying from infections increases.

For the health, wellbeing and safety of our patients both now and in the future we, the Doctors of

have joined the fight against antibiotic resistant bacteria.

We will only prescribe antibiotics when considered necessary and of benefit to the health of the patient.

Dr Ann Lewis, Consultant Microbiologist (Public Health Wales) and Chair (ABMU Health Board Antimicrobial Advisory Group)

On behalf of GP Surgery

For antibiotics to continue to save lives all of us must act now!

Dr Ann Lewis, Consultant Microbiologist (Public Health Wales) and Chair (ABMU Health Board Antimicrobial Advisory Group)

On behalf of GP Out of Hours Service

For antibiotics to continue to save lives all of us must act now!
General Poster

...whose side are you on?

By taking antibiotics when we don't need to we help bacteria become stronger and more resistant to antibiotics. This means bacterial infections can't be beaten by antibiotics and the risk of people dying from infections increases.

For the health, wellbeing and safety of our patients both now and in the future Abertawe Bro Morgannwg University Health Board and local GP Surgeries have joined the fight against antibiotic resistant bacteria.

Doctors will only prescribe antibiotics when considered necessary and of benefit to the health of the patient.

Dr Ann Lewis, Consultant Microbiologist (Public Health Wales) and Chair (ABMU Health Board Antimicrobial Advisory Group)

For antibiotics to continue to save lives all of us must act now!
Plus…

• E-mail banner for staff
• Presentation for waiting room TVs
• Quiz for website
• Press releases / Facebook posts / Twitter feeds etc
• Covering letters for contractors
Important links

• European Antibiotic Awareness Day

• Choose Well
Total Antibacterial Prescribing

Period

DDDsPer1000PUs

Abertawe Bro Morgannwg Uni
National GP
Linear (Abertawe Bro Morgannwg Uni)
Linear (National GP)
Antibacterial items per 1000 STAR-PU

Percentage change (Dec 12 - Dec 13):
- Bridgend = -5.34%
- Neath Port Talbot = -10.64%
- Swansea = -9.77%
- National = -8.01%
- ABMU = -8.72%
Co-Amoxiclav as a % antibacterial drugs

- Abertawe Bro Morgannwg Uni
- National GP
- Linear (Abertawe Bro Morgannwg Uni)
- Linear (National GP)

Period

Items
Next Steps

• ABMU HB have joined a national pilot of an antimicrobial guidelines platform

• ‘Panacea’ is a platform that will enable better access to both primary and secondary care antimicrobial guidelines
  o Website/Android/IOS
Next steps

- Service change plan - **Targeting Clostridium difficile infection & antibiotic resistance in primary care**
  - Advocates a programme approach led by a team including a pharmacist, infection control nurse, data analyst and project manager
Next steps

• Comprehensive, regular and consistent analysis of antimicrobial/PPI prescribing, including in-practice audits

• Targeted interventions based on data from Heat Mapping software

• Multidisciplinary prescribing reviews in conjunction with GP practice staff
Next steps

- Education and awareness sessions with prescribers regarding antimicrobial/PPI prescribing

- Development of a network of GP antimicrobial prescribing champions

- Development of a visible ongoing Health Board wide campaign to raise awareness of the dangers of inappropriate antibiotic use and associated antibiotic resistance
Thank you