ANTIMICROBIAL STEWARDSHIP IN PRIMARY CARE

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CONFLICTS OF INTEREST

NONE
PRESENTATION OUTLINE.

• SETTING THE SCENE – WORLD AND NEW ZEALAND.

• BARRIERS TO OVERCOME.

• WHAT WORKS?

• WHAT DO WE NEED?

• CONCLUSION.
WHAT IS ANTIMICROBIAL STEWARDSHIP?

• APPROPRIATE USE OF ANTIMICROBIAL AGENTS RELATING TO:
  - AGENT USED
  - DOSE
  - LENGTH OF TREATMENT
APPROPRIATE USE

• “OUR MISSION IS NOT TO PRESCRIBE AS FEW ANTIMICROBIALS AS POSSIBLE BUT TO IDENTIFY THAT SMALL GROUP OF PATIENTS WHO REALLY NEED ANTIMICROBIAL TREATMENT AND TO EXPLAIN, REASSURE AND EDUCATE THE LARGE GROUP OF PATIENTS WHO DON’T.”

BJGP 2009;59:567
COMMUNITY USE OF ANTIMICROBIALS.

• ESTIMATED THAT 80 TO 90% OF ANTIMICROBIALS ARE USED IN THE COMMUNITY.

• 60% OF THESE ARE USED FOR RESPIRATORY TRACT INFECTION.
NEW ZEALAND ANTIMICROBIAL CONSUMPTION
NZ COMPARED TO OTHER COUNTRIES.
COMPOUND ANNUAL GROWTH RATE FROM 2000 TO 2010.
Community use of Antibiotics in NZ

2009
Community use of Antibiotics in NZ

2012

EVERY region has increased antibiotic prescriptions per 1000 population.
NON-MEDICAL PRESCRIBERS

• NON-MEDICAL PRESCRIBERS (NMP) ARE HEALTH PROFESSIONALS OTHER THAN DOCTORS WHO ARE LEGALLY ABLE TO PRESCRIBE MEDICINES TO PATIENTS.

NON -MEDICAL PRESCRIBERS AND ANTIBIOTICS

Figure 1. Trends in antibiotic dispensing from 2008-2012 where the prescription was written by a dentist, nurse or midwife.

The number of prescribers has remained relatively stable over the last 5 years with an average of 1485 dentists and 1625 nurses prescribing antibiotics per year.
NON-MEDICAL PRESCRIBERS AND ANTIBIOTICS

• WITH THE EXCEPTION OF THE NURSES/MIDWIVES IN 2008-2009, THE NUMBER OF ANTIBIOTIC ITEMS PRESCRIBED BY DENTISTS AND NURSES/MIDWIVES IN NEW ZEALAND INCREASED EVERY YEAR (FIGURE 1).

• IN 2012 THE 84,106 ITEMS PRESCRIBED BY NMPS MADE UP 2.2% OF THE TOTAL ANTIBIOTIC PRESCRIBING IN NEW ZEALAND.
A FOCUS ON ANTIMICROBIALS

• ANTIBIOTIC GUIDE.

• ANTIBIOTIC CLASS SERIES: SEVEN ARTICLES PUBLISHED IN BPJ ON THE APPROPRIATE USE OF MEDICINES WITHIN EACH MAJOR CLASS OF ANTIBIOTICS AVAILABLE TO PRIMARY CARE IN NEW ZEALAND.

• MANAGING USE OF ANTIBIOTICS: MULTIPLE ARTICLES IN BPJ AND BT GUIDING RESPONSIBLE USE OF ANTIBIOTICS FOR SPECIFIC CONDITIONS SUCH AS SKIN INFECTIONS AND RESPIRATORY INFECTIONS.

• EDITORIALS: ANTIMICROBIAL RESISTANCE SERIES AND OTHER GUEST CONTRIBUTIONS ON RESPONSIBLE USE OF ANTIMICROBIALS.
Figure 1. ESBL-producing Enterobacteriaceae incidence rates, 2004-2013

Data for 2004 and 2005 are based on continuous surveillance of all ESBL-E isolations. Data for 2006 to 2013 are annualised and based on 4-week or 1-month surveys conducted in these years. The 2006 survey only included urinary *E. coli* and *Klebsiella*, therefore the data for 2006 is not directly comparable with that for other years. The category ‘Unknown’ in 2010 represents people identified with an ESBL-E during the survey period but from whom no isolate was referred to ESR and the species was not reported.
Figure 3. Annualised incidence of ESBL-producing Enterobacteriaceae infections by district health board, 2013

Data for the Capital & Coast and Hutt District Health Boards (DHBs) are combined as ‘Capital & Coast/Hutt’, and data for the Canterbury and South Canterbury DHBs are combined as ‘Canterbury’.
Figure 1. MRSA period-prevalence rates, 2004-2013
Figure 3. MRSA infection period-prevalence rates by district health board, 2013
BARRIERS TO IMPLEMENTING GUIDELINES FOR ANTIBIOTIC USE.

- PATIENT BELIEFS/ATTITUDES.

- CLINICIAN’S ATTITUDES, BELIEFS AND SKILLS.

PATIENTS

• IN THIS FAST TECHNOLOGY DRIVEN WORLD PATIENTS EXPECT TO FEEL WELL QUICKLY AND RETURN TO WORK AS SOON AS POSSIBLE.

• PATIENT'S PAST EXPERIENCE DRIVES THEIR EXPECTATIONS IE “I HAD ANTIBIOTICS THE LAST TIME”. NEED TO HAVE A CONSISTENT APPROACH IN A GEOGRAPHICAL AREA.

• WHEN ENGLISH IS NOT THE PRIMARY LANGUAGE THERE MAY BE DIFFICULTIES IN COMMUNICATION.
PATIENTS - OVERCOMING BARRIERS.

• EDUCATION CAMPAIGNS NEED TO BE TIMELY IE TARGET URTIS. IN AUTUMN.
• HIGH PROFILE CAMPAIGNS WITH DESIGNATED AREAS OF PHARMACIES AND WAITING ROOMS. THIS CAN INCLUDE DIFFERENT TYPES OF MATERIAL EG. POSTERS, VIDEOS.
• PUBLIC CAMPAIGN NEEDS TO BE REINFORCED DURING THE CONSULTATION.
• ALL PATIENTS REQUIRE INFORMATION RELATING TO LENGTH OF SYMPTOMS FOR THE PRESENTING SYNDROME, SELF CARE AND WHAT SHOULD PROMPT RECONSULTATION.
• THOSE RECEIVING ANTIMICROBIALS NEED TO UNDERSTAND THEY SHOULD COMPLETE THE COURSE.
• TRAINING OF ALL HEALTHCARE STAFF RELEVANT TO THE CAMPAIGN.
• PUBLIC EDUCATION EG E – BUG FOR CHILDREN.
CLINICIANS - BARRIERS.

- CLINICIANS HAVE MANY COMPETING INTERESTS AND KEEPING AMR AND STEWARDSHIP ON THE AGENDA IS A CHALLENGE.
- MAY NOT SEE AMR AS A SERIOUS ISSUE.
- MAY BE SWAYED BY THE PERCEIVED RISK OF COMPLICATIONS FROM NOT PRESCRIBING RATHER THAN THE RISK OF THE SIDE EFFECTS OF THE ANTIMICROBIALS.
- MICROBIOLOGISTS/ ID PHYSICIANS NEED TO GIVE SPECIFIC GUIDANCE REGARDING APPROPRIATE TREATMENT. DIFFERENT SOURCES MAY GIVE CONFLICTING ADVICE.
CLINICIANS - OVERCOMING BARRIERS.

• AMR NEEDS TO BE MOVED UP POLITICAL AND PROFESSIONAL AGENDAS.
• FOCUSED EDUCATION AND CAMPAIGNS.
• INCREASE CONFIDENCE BY PROVIDING EVIDENCE BASED FEASIBLE APPROACHES AND TOOLS. SOME OF THESE HAVE BEEN DEVELOPED OVERSEAS AND HAVE HAD SOME SUCCESS.
• EXPECTED TIME COURSE OF VARIOUS SYNDROMES, HOW TO IDENTIFY PATIENTS AT RISK AND VIABLE ALTERNATIVES.
• AUDIT.
• RESEARCH TO IDENTIFY SUCCESSFUL STRATEGIES.
WHAT WORKS?

• USE OF DELAYED PRESCRIPTIONS HAS BEEN SHOWN TO WORK, BOTH TO REDUCE ANTIMICROBIAL USE BUT ALSO THEY DECREASE RE CONSULTATIONS.

• MULTIFACETED EDUCATION OF HEALTHCARE PERSONNEL HAS REDUCED USE IN SOME COUNTRIES. THIS INCLUDES TOOLS EG ANTIMICROBIAL GUIDELINES ETC.

• BUT DIFFERENT STRATEGIES MAY BE REQUIRED IN DIFFERENT COUNTRIES AND EVEN DIFFERENT REGIONS.
WHAT DO WE NEED?

• LEADERSHIP.

• INSTRUMENTS TO IMPROVE THE HANDLING OF INFECTIOUS DISEASE. THESE MAY HAVE VARIABLE IMPACT DEPENDING ON GEOGRAPHICAL LOCATION.

• MORE INFORMATION/ RESEARCH LOCALLY TO DIRECT STRATEGIES.
CONCLUSIONS.

• NOW HAVE A CLEARER VIEW OF THE NZ SITUATION.

• ANTIMICROBIAL STEWARDSHIP IN PRIMARY CARE IS ESSENTIAL.

• THERE ARE STRATEGIES THAT WORK BUT THESE NEED TO BE FOCUSSED TO THE LOCAL ISSUES.