SAPG Global Health project

Alison Cockburn, Lead Antimicrobial Pharmacist, NHS Lothian, Global Health Fellow
Background

- Fleming Fund with CwPAMS and THET funding grant obtained

  Project aims:
  - By April 2020 to develop and implement robust and reliable systems and processes for antimicrobial stewardship in Keta Municipal Hospital and Ghana Police Hospital
  - Including train the trainer education sessions to deliver a local stewardship programme
  - To implement a supported point prevalence survey to provide baseline surveillance data on antibiotic use
Ghana hospitals

- Ghana Police Hospital

  - Built in 1976, 100 beds, 6 wards – including male, female, maternity, paediatric and executive. OPD, ICU and a Dialysis Centre.

  - Staffing – total of 277 staff, including 30 doctors, 13 pharmacists, 140 nurses
Ghana hospitals

- Keta Municipal Hospital

- Built in 1926, 110 beds in 6 wards – male, female, paediatric, maternity, emergency, special (infectious disease and surgery) and OPD.

- Staffing – total of 273 staff including 4 doctors, 1 pharmacist, 120 nurses
Project plan

- **May 2019** – Scoping point prevalence

- **September 2019** – Development of training programme with local teams – production of education resources, presentations and workshops and case-studies
- Comparison of Ghana Prescribing Guidelines with NHS Scotland guidelines

- **October 2019** – Visit to Ghana – delivery of education programme

- **Nov–Jan** – Training evaluation, Implementation of training by local teams
  Further point prevalence survey

- **Feb/March 2020** – Follow-up visit
Main Findings from PPS

- **Good practice:**
  - Good documentation of duration of antibiotics on medication charts
  - Automatic stop/review of IV antibiotics at 48hrs
  - No missed doses

- **Areas to work on:**
  - High antimicrobial use
  - High reliance on broad spectrum antibiotics
  - Long duration of surgical prophylaxis
  - Long duration of oral antibiotics after IV
  - No documentation of antibiotic allergies
  - Limited laboratory diagnostics
  - Ghana Prescribing Guidelines – incomplete and not user friendly
The project teams arrival……

Ghana Police Hospital
- Andrew Seaton – Infectious Diseases Consultant, GGC
- Billy Malcolm – Lead Pharmaceutical Officer, NSS
- Alison Cockburn – Antimicrobial Pharmacist, NHS Lothian
- Espe Palenzuela – Antimicrobial Pharmacist, NHS Lothian

Keta Municipal Hospital
- Jacqui Sneddon – Project Lead, SAPG
- Amanj Kurdi – Pharmacoepidemiology Lecturer, Strathclyde University
- Elaine Cameron – Health Psychologist, Change Exchange, Manchester University
- Fran Kerr – Antimicrobial Pharmacist, NHS Lanarkshire
- Joanna Goldthorpe – Health Psychologist, Manchester University
- Morgan Evans – Infectious Diseases Consultant, NHS Lothian
- Rachel McKinney – AMT Nurse, NHS Lothian
Keta Municipal Hospital team
Ghana Police Hospital team – with Daniel and Matron
Our local partners – Daniel Afriyie, Director of Pharmacy, GPH and Israel Sefah, Pharmacist Head of Dept, Keta Municipal Hospital
Delivering presentations – management of common infections

Common indications for Antibiotics
Ghana Hospital PPS data

% indication/Infection type

- Pneumonia: 23%
- Skin soft tissue: 15%
- Intra-abdominal: 14%
- Sepsis (undefined): 13%
- Urinary: 6%
- Obstetric: 5%
- Other: 11%

KKH and GPH PPS May 2019
Workshops – focussing on patient case studies
Health Psychologists – Elaine and Jo – workshops on behaviour change

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<thead>
<tr>
<th>TRICKS 65 CHAMPIONS</th>
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<tr>
<td>Prompt from nurses</td>
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<tr>
<td>- “What is the patients’ current state?”</td>
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<td>- “What does it feel like when you hear a patient’s story?”</td>
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<td>- “How confident are you? Are you right?”</td>
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<td>- Ask one of the doctors to train the nurses 65s</td>
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<td>- Share successes</td>
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<td>- Say well done (by daily role)</td>
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MOTIVATION |
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<td>Repeated messages, (3x a day)</td>
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<td>Encourage</td>
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<tr>
<td>Reason / Importance</td>
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<td>Teamwork / Spirit</td>
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<tr>
<td>This is expected</td>
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<td>Feedback / Reward</td>
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<td>Make it normal</td>
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Making Antibiotic Guardian pledges
Antibiotic Guardian pledge board at Ghana Police Hospital
Visit to University of Ghana Pharmacy School
Visit to Ghana Ministry of Health
Impact of training on knowledge

- Participants completed a quiz (scored out of 13) at beginning and end of training session

- In KMH mean scores were: pre-test 9.1 (SD 1.8) (range 5–13) and post-test 10.9 (SD 1.3) (range 8–13)

- In GPH mean scores were: pre-test 9.2 (SD 2.2) (range 5–13) and post-test 11.1 (SD 1.8) (range 8–13)

- Paired t test (KMH) and one sample t test (GPH) showed changes in knowledge were highly significant (p = 0.00001 and p = 0.00002 respectively)
### Impact of training on attitudes and behaviours

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<tr>
<td>1.</td>
<td>Antimicrobial resistance is a serious problem</td>
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<td>2.</td>
<td>I am worried that antibiotics will soon become ineffective</td>
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<tr>
<td>3.</td>
<td>I am worried patients will develop antibiotic resistant infections</td>
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<td>4.</td>
<td>Following national or local antibiotic prescribing guidelines will help to prevent the development of antimicrobial resistance</td>
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<td>5.</td>
<td>It is part of my professional role to reduce the risks of antibiotic resistance</td>
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<td>6.</td>
<td>I am able to access the Ghana Standard Treatment Guidelines easily</td>
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<td>7.</td>
<td>I find it easy to adhere to Ghana Standard Treatment Guidelines whenever I prescribe or administer antimicrobials</td>
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<td>8.</td>
<td>My peers support adherence to Ghana Standard Treatment Guidelines when prescribing or administering antimicrobials</td>
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<td>9.</td>
<td>I feel confident about questioning a colleague about an antibiotic prescription not in line with the Ghana Standard Treatment Guidelines</td>
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<td>10.</td>
<td>I plan to adhere to Ghana Standard Treatment Guidelines whenever I prescribe or administer an antibiotic</td>
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#### Key changes

- Awareness of AMR, its potential impact and personal responsibility
- Ability to access and adhere to the guidelines
- More confident about questioning a colleague about a prescription