Scottish Reduction in Antimicrobial Prescribing (ScRAP) Programme: Update and feedback on a national Primary Care Educational Resource

J Sneddon, A Thomson, G Walker, FIS December 2017
ScRAP V1

2013

- GP practice setting
- 90 minute learning session
- DVD with commentary
- Facilitator (Prescribing Adviser)
- Unnecessary use RTI

ScRAP V2

2017

- Quality Prescribing
  - Scottish Reduction in Antimicrobial Prescribing (ScRAP) Programme V2

- Various settings (e.g. GP, NMP, care home)
- Six 30-60 minute learning sessions
- PowerPoint slide sets
- Facilitator (anyone)
- Unnecessary use in RTI and UTI
- Quality improvement approach
- Tools to support change

Quality Education for a Healthier Scotland
Sessions - 6 Slide Sets

1. Antimicrobial Resistance and HAI
2. Public Understanding and Expectations
3. Targeting Prescribing – RTI
   a. Deciding when to prescribe
   b. Alternative strategies
4. UTI
   a. Uncomplicated female
   b. Complicated (older people, catheter associated, men)
   c. Recurrent
Patient Resources

(TARGET Antibiotics Toolkit)

Parent/Carer Leaflet: ‘When Should I Worry’
Source: Cardiff University

Self-care information leaflets

Step 2: Check how long your symptoms last

Earache
A earache usually lasts 4 days

Sore throat
A sore throat usually lasts 7 days

Cold
A cold usually lasts 10 days

Cough
A cough usually lasts 21 days

If you are not starting to improve a little by the times given above, get advice from your GP practice. If you are feeling a lot worse, phone NHS 111, NHS Direct Wales or NHS 24 (see step 4).

Public Health England

Treating your infection

Your Infection

<table>
<thead>
<tr>
<th>How to treat yourself better for these infections, now and next time</th>
<th>When should you get help?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle-ear infection</td>
<td>Usually lasts 4 days</td>
</tr>
<tr>
<td>Have plenty of rest.</td>
<td>Contact your GP practice or contact NHS 111 (England), NHS 24 (Scotland) or NHS Direct (Wales) if unwell and worried</td>
</tr>
<tr>
<td>Drink enough fluids to avoid feeling thirsty.</td>
<td></td>
</tr>
<tr>
<td>Ask your local pharmacist to recommend medications to help your symptoms or pain (or both).</td>
<td></td>
</tr>
<tr>
<td>Common cold</td>
<td>Usually lasts 10 days</td>
</tr>
<tr>
<td>Sore throat</td>
<td>Usually lasts 7 days</td>
</tr>
<tr>
<td>Handwashing</td>
<td></td>
</tr>
<tr>
<td>Sore throat</td>
<td>Usually lasts 7 days</td>
</tr>
<tr>
<td>Sniffly/fluey</td>
<td>Usually lasts 5 to 7 days</td>
</tr>
<tr>
<td>Fever</td>
<td></td>
</tr>
<tr>
<td>Headache</td>
<td></td>
</tr>
<tr>
<td>Nausea</td>
<td></td>
</tr>
<tr>
<td>Vomiting</td>
<td></td>
</tr>
<tr>
<td>Sinusitis</td>
<td>Usually lasts 10 days</td>
</tr>
<tr>
<td>Cough or bronchitis</td>
<td></td>
</tr>
<tr>
<td>Other infections</td>
<td></td>
</tr>
</tbody>
</table>

Public Health England

Urinary tract infection (UTI) information leaflet

For women outside care settings with suspected uncomplicated urinary tract infections (UTIs) or uncomplicated recurrent UTIs

Possible symptoms of a urinary tract infection (UTI)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Pain or burning when passing urine</th>
<th>Frequency of voiding</th>
<th>Frequency</th>
<th>Pain or burning when passing urine</th>
<th>Frequency of voiding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pus or white blood cells in your urine</td>
<td>Blood in your urine</td>
<td>Infection symptoms last in the right</td>
<td>Frequency</td>
<td>Pain in your lower tummy</td>
<td></td>
</tr>
<tr>
<td>Infection due to sexual activity can feel similar to the symptoms of a UTI.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Public Health England

Self-care to help yourself get better more quickly

<table>
<thead>
<tr>
<th>Drink lots of fluid to keep you feeling thirsty.</th>
<th>Drink lots of fluid to keep you feeling thirsty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take paracetamol or ibuprofen if you have pain.</td>
<td>Take paracetamol or ibuprofen if you have pain.</td>
</tr>
<tr>
<td>High fever</td>
<td>High fever</td>
</tr>
<tr>
<td>You can try cold compress on the jaw.</td>
<td>You can try cold compress on the jaw.</td>
</tr>
<tr>
<td>These are effective for some people.</td>
<td>These are effective for some people.</td>
</tr>
<tr>
<td>Consider the risks factors in the infection evaluation table to reduce future UTIs.</td>
<td>Consider the risks factors in the infection evaluation table to reduce future UTIs.</td>
</tr>
</tbody>
</table>

Public Health England

When should you get help?

<table>
<thead>
<tr>
<th>Contact your GP practice or contact NHS 111 (England), NHS 24 (Scotland) or NHS Direct (Wales) if unwell and worried</th>
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</table>

Public Health England

Common side effects in taking antibiotics

<table>
<thead>
<tr>
<th>Antibiotic resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibiotics must always be used, only take them after advice from a health professional. If you have a UTI you should work to your own time.</td>
</tr>
<tr>
<td>Antibiotics taken, by mouth, for any reason, effective in treating or reducing resistance to antibiotics in the body.</td>
</tr>
<tr>
<td>Common side effects in taking antibiotics, include rash, itchy skin, vomiting and diarrhoea.</td>
</tr>
</tbody>
</table>

Public Health England

Videos e.g. Health Education England Animation on AMR (1:49)

www.youtube.com/watch?v=oMnU6g2dj4m4

Education programme/games for juniors/seniors and young adults

www.e-bug.eu/
## UTI Audit Tool

**Guidance**

*Use a new workbook for each audit period.*

Identify patients who have been prescribed UTI antibiotics during the audit period (trimethoprim, nitrofurantoin, coamoxiclav, cefalexin, fosfomycin, pivmecillinam, ciprofloxacin, ofloxacin). Retrospectively audit the management of those who have been treated for acute episodes of UTI. Suggested minimum audit period is 1 month (average practice) or 50 patients (NB the maximum number of patients that can be audited in any period is 1000).

Audit against the PMH Quick Reference Guide or the SAPG Management of Suspected UTI in Older People. Where a patient was prescribed a UTI antibiotic more than once in the audit period, a separate row should be completed for each prescription. A paper based form can be downloaded from the SAPG website to allow consultation details to be recorded for entry at a later date.

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## Data Entry Instructions

Enter consultation data in the input Data worksheet. Enter data for every column (unless marked as optional below) in a separate row for each patient.

Complete/select data according to the options below:

### Patients

1. **Prescriber ID**: Optional. Give an ID that is relevant to you.
2. **Patient ID**: Optional. Give an ID that is relevant to you.
3. **Age range**: Select from age bands.
4. **Care home resident?**: Select Yes/No.
5. **Receiving antibiotic prophylaxis?**: Select Yes/No.

### Actions

6. **UTI type**
7. **Consultation type**
8. **Dipstick required/done**
9. **Reason dipstick not in line with guidance**
10. **Culture required/done**
11. **Reason culture not in line with guidance**

Select the appropriate option.

Options displayed are dependent on previous question. Complete Q8 then Q9.

Options displayed are dependent on previous question. Complete Q10 then 11.

### Antibiotic

12. **Was an antibiotic required?**
13. **Reason why antibiotic not required**
14. **Which antibiotic prescribed**
15. **Choice of antibiotic appropriate?**
16. **Reason choice inappropriate**
17. **Dose appropriate?**
18. **Frequency appropriate?**
19. **Duration appropriate?**
20. **Delayed?**
21. **Additional comments**

Options displayed are dependent on previous question. Complete Q12 then 13.

Options displayed are dependent on previous question. Complete Q13 then 16.

Select the appropriate option.

Select Yes/No.

Select the appropriate option.

Select the appropriate option.

Select the appropriate option.

Select the appropriate option.

Add any additional information e.g. drug name if not in list or anything else relevant to you.

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**Reports**

Reports are automatically generated in the tabs: Patients, Actions, Antibiotic.

Good Practice Examples
Standardising the Management of Suspected UTIs in Older Residents of Aberdeen City Care Homes

**Suspected Urinary Infection in Older People?**
(Reporting form for care home residents WITHOUT A CATHETER)

**Date:** ..................................................
**Resident Name:** .................................. **Date of Birth:** ..................................

1. **Record Symptoms**
   - Does the resident have any new or worsening... (tick all that apply)
   - Cough, breathlessness or chest pain?
   - Nausea, vomiting, abdominal pain, or diarrhoea?
   - Skin redness, warmth, swelling, rash, pus?
   - Constipation?
   - Other (please specify):
     - Pain when urinating
     - An urgent need to urinate
     - A frequent need to urinate
     - New or worsening urinary incontinence
     - Shaking chills (rigors)
     - Pain in the side of their body or above their pubic bone
     - Blood visible in the urine
     - Delirium (confusion), restlessness, agitation, hallucinations, mood change?

2. **Record Temperature (and if possible, Blood Pressure)**
   - Date
   - Time
   - Temperature
   - Blood Pressure

3. **Phone the GP Surgery** – tell them all of the above details

4. **Record the recommended ACTION and the name of the GP/Nurse you spoke with**

**Remember: Do NOT dipstick urine in diagnosis of UTI in older people**

**Number of Trimethoprim and Nitrofurantoin Prescription Items**
for Aberdeen City Care Home Patients

**INTERVENTION**
- letters to GP practices
- visits to care homes by pharmacy team

4 months later, a sustained reduction of 24%
ScRAP 2 - the facilitator

- Any discipline
- Support group to discuss current practice and identify improvements
- Keep discussion focused
- No need to be an expert
- Facilitator notes provided with slides
- Additional e-learning if desired

http://www.rcgp.org.uk/clinical-and-research/toolkits/~/link.aspx?id=2FC34B3CA5B446F19CB795B37AFF5083&z=z
Support Pack

Quality Prescribing

Scottish Reduction in Antimicrobial Prescribing (ScRAP) Programme V2

Support Pack

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   b. GP CPD credit record 41 42

We commend the updated ScRAP programme to you and encourage GP Practices to engage with these education sessions to facilitate optimisation of antibiotic prescribing within your Board.

Professor Dilip Nathwani
Chairman of SAPG

Dr Catherine Calderwood
Chief Medical Officer

Quality Education for a Healthier Scotland
ScRAP and QI

Figure 1. Model for improvement and the ScRAP journey

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

Tools such as audit, prescribing data, and process mapping may help identify the improvement aim.

Measures may be readily available, e.g. prescribing data, or require data collection, audit or qualitative feedback.

Change ideas may include undertaking ScRAP education session(s); implementing process changes and/or tools (e.g. risk scoring, patient information).

http://www.qihub.scot.nhs.uk/
https://quality.bmj.com/
National Therapeutic Indicators
to measure impact of ScRAP

Volume measures (items)
- Total antibiotic
- 4C
- Trimethoprim and nitrofurantoin

Duration measure (adult women)
- Proportion women prescribed 3 days trimethoprim/nitrofurantoin vs. other durations

Repeat use measure (number people)
- People prescribed >4 items (trimethoprim/nitrofurantoin) in 12 months
What pilot participants said about UTI sessions

- Covered relevant points in short session and generated good discussion
- Liked that it was interactive
  - Case was typical of ‘real-life’
- Very interactive
  - Liked clinical scenarios
- Liked decision algorithm; case study
  - Session generated lots of discussion
- Informative
  - Useful
  - Relevant
- Effective use of time with useful key learning points
- Beneficial to understand current process and changes we could make to practice
- Good to continue to be updated
- Good case study
  - Good discussion
  - Lovely hand-out!
What pilot participants would change about their practice

- Ibuprofen for cystitis
  - Follow diagnostic algorithm

- Stick to guidelines more

- Take previous antibiotic use into account when treating empirically

- Review current practice of patients handing in urine without speaking to clinician

- Take catheter samples from port not bag.
  - Assess symptoms in elderly

- Will majorly decrease use of dipstick test.
  - Use decision tool in older people

- Discuss with care home staff – consider stopping dipsticking unless excluding UTI as cause of PUO

- Not dipstick urine!
  - Watch and wait approach

- Likely to reduce use of urinalysis and antibiotics

- Better history taking to establish if other diagnosis more likely
## Preliminary Survey Results (Aug 17)

<table>
<thead>
<tr>
<th>Participants (n=5)</th>
<th>Facilitators (n=12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP (3); PN (1); Admin (1)</td>
<td>Pharmacist (12) delivered to: GP (14); PN (8); Admin (4); Other Pharmacist (1)</td>
</tr>
<tr>
<td><strong>Influence on knowledge:</strong></td>
<td><strong>Perceived keenness to participate:</strong></td>
</tr>
<tr>
<td>30% some</td>
<td>50% mixed/ neutral</td>
</tr>
<tr>
<td>60% major</td>
<td>50% quite keen</td>
</tr>
<tr>
<td><strong>Influence on practice:</strong></td>
<td><strong>Perceived influence on practice:</strong></td>
</tr>
<tr>
<td>60% some</td>
<td>70% some</td>
</tr>
<tr>
<td>40% major</td>
<td>30% major</td>
</tr>
<tr>
<td><strong>Top 3 Practice actions:</strong></td>
<td><strong>Top 3 Practice actions:</strong></td>
</tr>
<tr>
<td>Change use urinalysis</td>
<td>Change use urinalysis</td>
</tr>
<tr>
<td>Use patient info leaflets</td>
<td>Use patient info leaflets</td>
</tr>
<tr>
<td>Review use UTI questionnaire</td>
<td>Use decision algorithms</td>
</tr>
</tbody>
</table>
Conclusion

• The revised ScRAP resource with UTI content and a QI approach has been well received
• Two thirds of NHS boards in Scotland plan to utilise the resource during 2017-18
• Feedback to date from facilitators and participants suggests it promotes good discussion amongst practice staff
• Process mapping during the session allows improvements to be made almost immediately.
Reference Group

- Anne Thomson (project manager), LCP Glasgow HSCP
- Dr Gill Walker, HAI Programme Director, NES
- Dr Jacqueline Sneddon, Project Lead, SAPG
- Dr John MacKay, GP / NES
- Dr Edward James, Microbiologist, NHS Borders
- Hazel Steele, Antimicrobial/ Locality Pharmacist, NHS Tayside
- Anthony McDavitt, Prescribing Support Pharmacist, NHS Shetland
- Debbie Waddell, Community Nursing/Lecturer/PhD Research
- Fiona McMillan/ Fiona Stewart, NES Pharmacy
- Graeme Bryson, LCP Glasgow HSCP (ScRAP1 project manager)
- Project support: Susan Paton & Sian Robson (SAPG), Lesley Armstrong & Elaine Thompson (NES)
Any questions?


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