

Clostridium difficile Infection (CDI) Current position

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Prevention and Control service

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Background/context

- In the year to March 2013, 14,687 cases of *Clostridium difficile* infection (CDI) were reported in patients aged ≥ 2 years across England, Wales and Northern Ireland (National Audit Office, 2009. **Reducing Health Infections in Hospital**, London. The Stationery Office)
- Secondary episodes of CDI can occur in 20% of patients and these individuals carry a 50% risk of further relapse
- National mandatory surveillance; target thresholds set for all Trusts and CCG's
- Implications: financial consequences and impact on quality
- Between April 12-March 13: 45 cases were reported for the PCT
- Annual target for HRW CCG (April 2013-March 2014) is 38

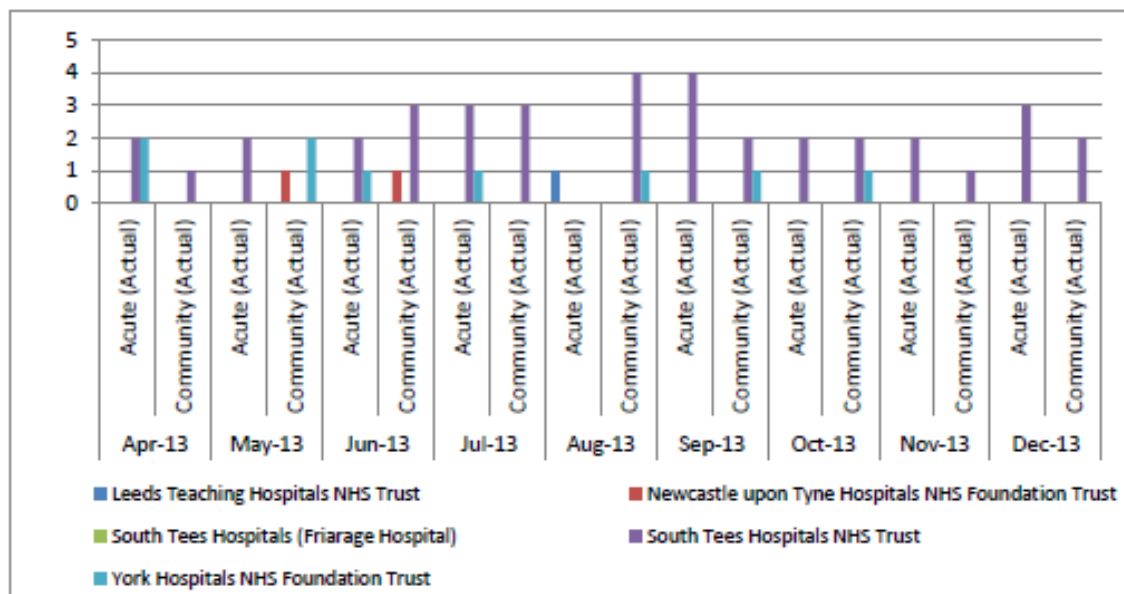
HRW CCG: Current position

| Performance | | | Cases per month YTD | Apr | May | Jun | Jul | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar |
|-------------|----------|--------------|---------------------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|
| | | | Community | 1 | 4 | 8 | 11 | 16 | 19 | 22 | 23 | 25 | | | |
| | 2012 /13 | YTD 2013 /14 | Acute | 4 | 6 | 9 | 13 | 14 | 18 | 20 | 22 | 25 | | | |
| Outcome | 45 | 50 | Total | 5 | 10 | 17 | 24 | 30 | 37 | 42 | 45 | 50 | | | |
| Plan | | 38 | Trajectory | 3 | 6 | 9 | 12 | 16 | 19 | 22 | 25 | 28 | 31 | 34 | 38 |

- Actual number of cases; over trajectory (since April 13)
- Actual number of cases; over year end target (by October 13)
- Number of cases will be in the region of 70-90% over year end target if we continue to follow current incidence trend
- Issues with the central database reporting system; CCG were unaware that the annual target was in danger of being breached until Mid Nov 13

C.Diff cases by Acute Trust

Monthly Position for Hospital & Community Attributed C.Dif cases split by Trust



| FT | Acute | Community |
|-----------|-------|-----------|
| STHFT | 20 | 18 |
| York | 4 | 5 |
| Leeds | 1 | 0 |
| Newcastle | 0 | 2 |

(STHFT: also breached their year end target of 37: cases to date= 49)

Current processes

- CDI reported as 'community' case if patient submits sample within Primary Care or admitted to hospital and develops CDI within 72hours of admission.
- 'Hospital' or 'Community' acquired categories does not give full picture of possible causal/contributory factors.
- NY Labs report case to NY CIPCN Team via dedicated priority contact-line.
- Details taken and GP faxed information as a priority alert.
- CDI RCA questionnaire attached inviting reply and submission.

CDI – directed advice

- Each CDI case defined as ‘community’ - GP Practice sent patient information, advice on prescribing, management, and additional resources. See examples.
- RCA reply rate high.
- RCAs reviewed – against NY Antimicrobial Guidelines.
- Patient given ‘direct support’ – advice from the team and contact details for any ongoing support.
- Patient sent letter and CDI information booklet.
- Patient given CDI Alert Card to carry with them to assist Health Practitioners in future management.

CDI patient support

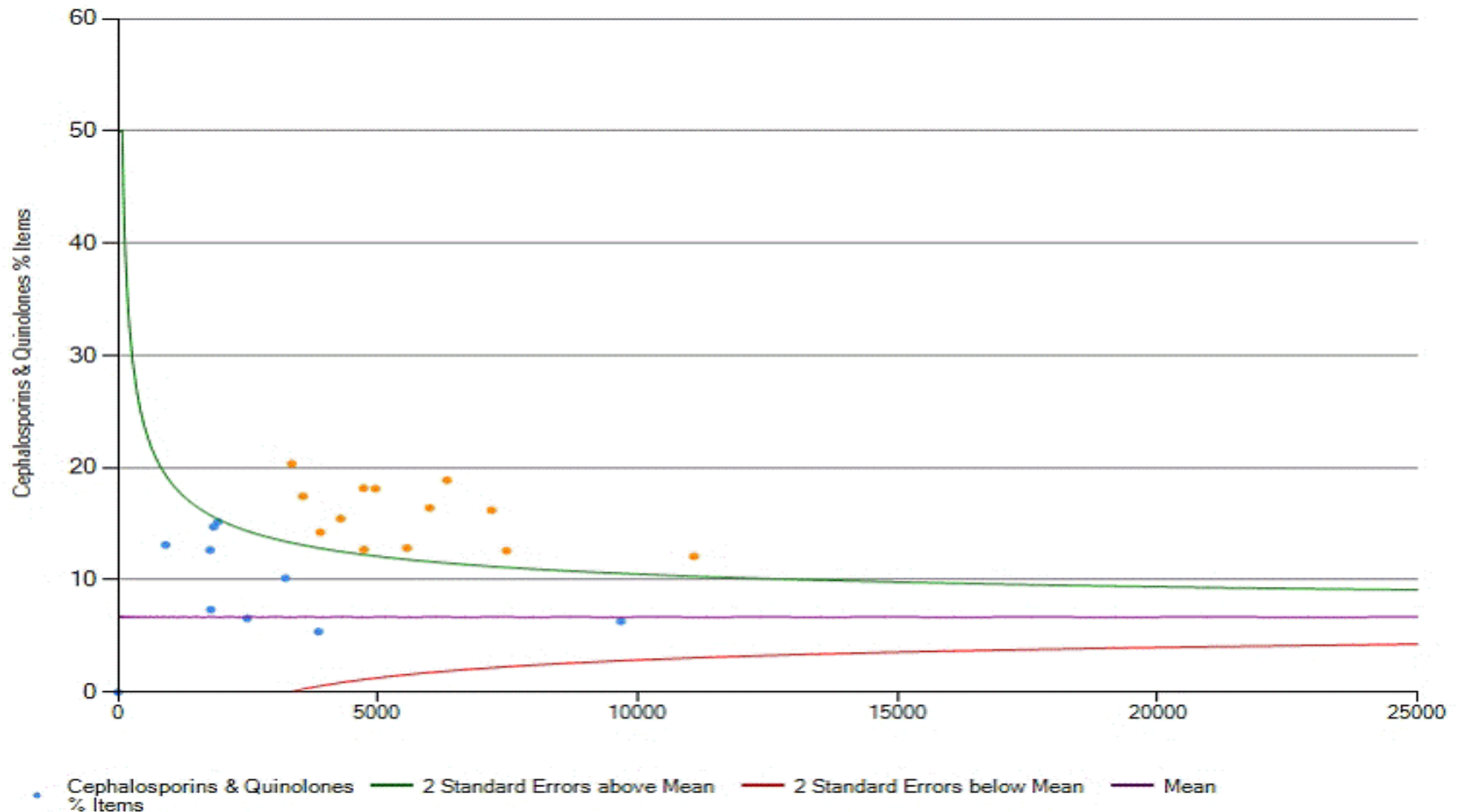
- To help reduce potential relapse.
- To assist patient in the understanding of their condition.
- To help avoid intra-household spread.
- 'CDI direct-support' currently undertaken for community CDI patients – aim to broaden subject to business case for all patients discharged from hospital following CDI to harmonize support for all patients.

Classification of CDI to aid understanding

- Infectious Disease Society of America classification.
- Applied to all NY CDI cases.
- Around 50% of patients have had a hospital admission in preceding 3 months (NY data).
- Demonstrates need to work across health-economy.
- Formation of NY HCAI Forum to look at joint HCAI projects.
- Evaluating Laboratory and National HCAI reporting to cross reference against databases to identify reporting issues.

Contributory factors: ?

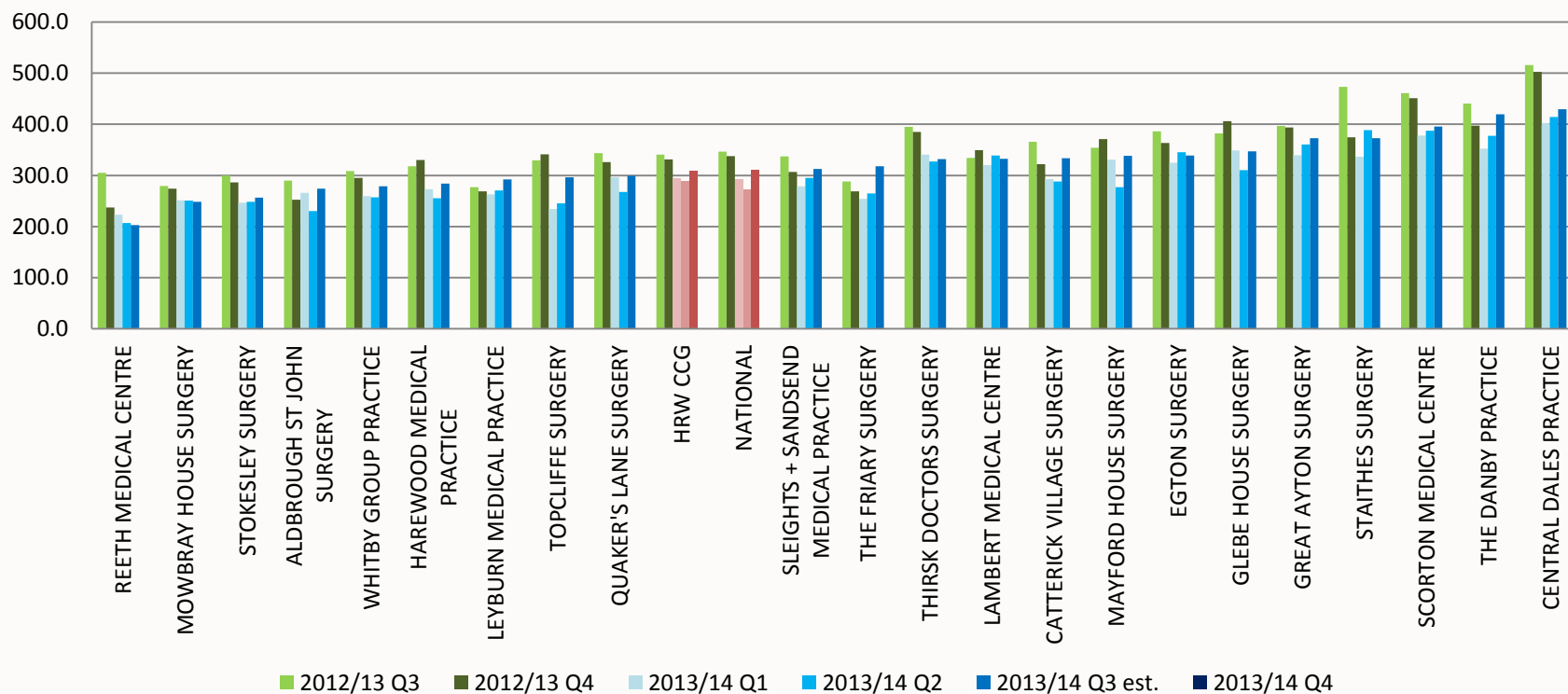
Data for NHS Hambleton, Richmondshire and Whitby CCG for Cephalosporins and Quinolones



Practice comparison

Antibacterial Prescribing

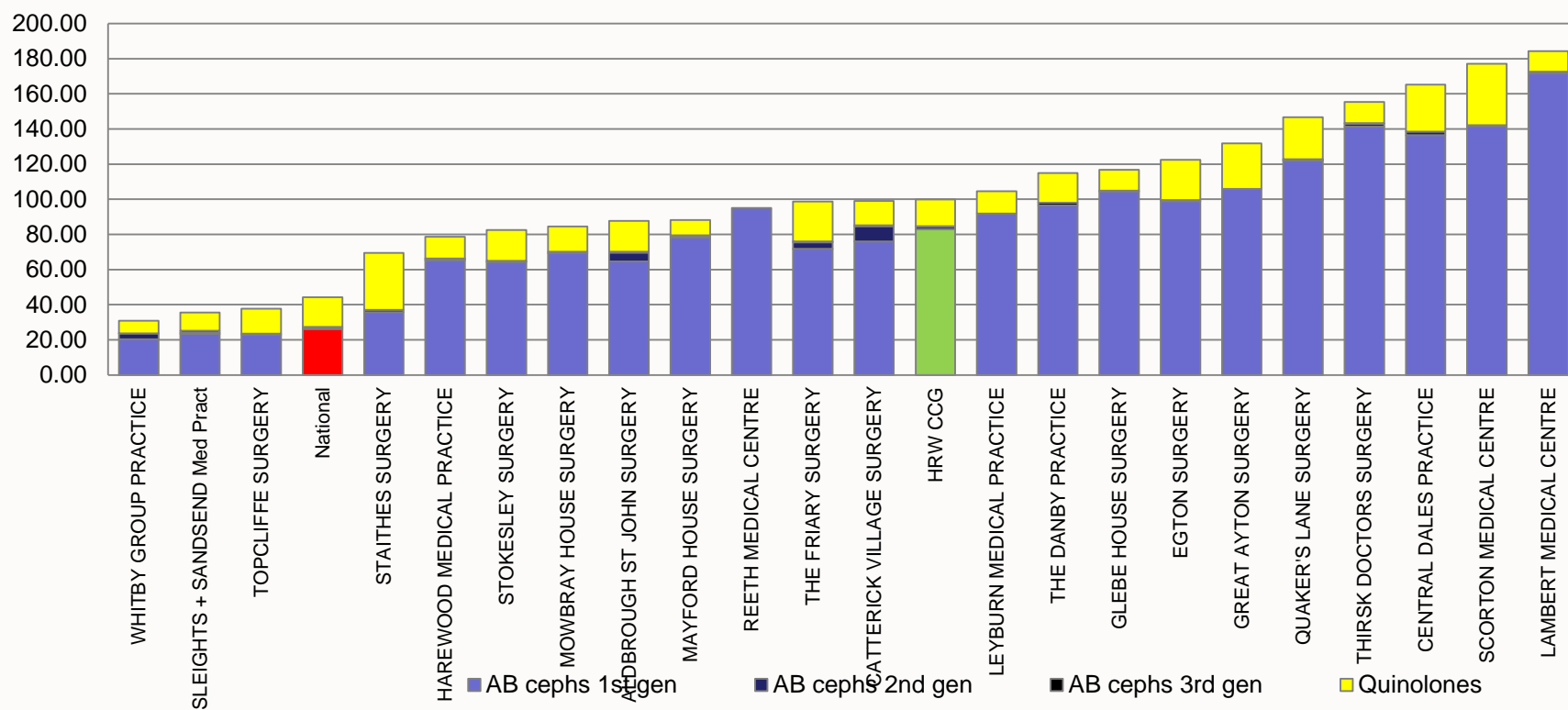
items per 1000STARPU's per quarter



Practice comparison

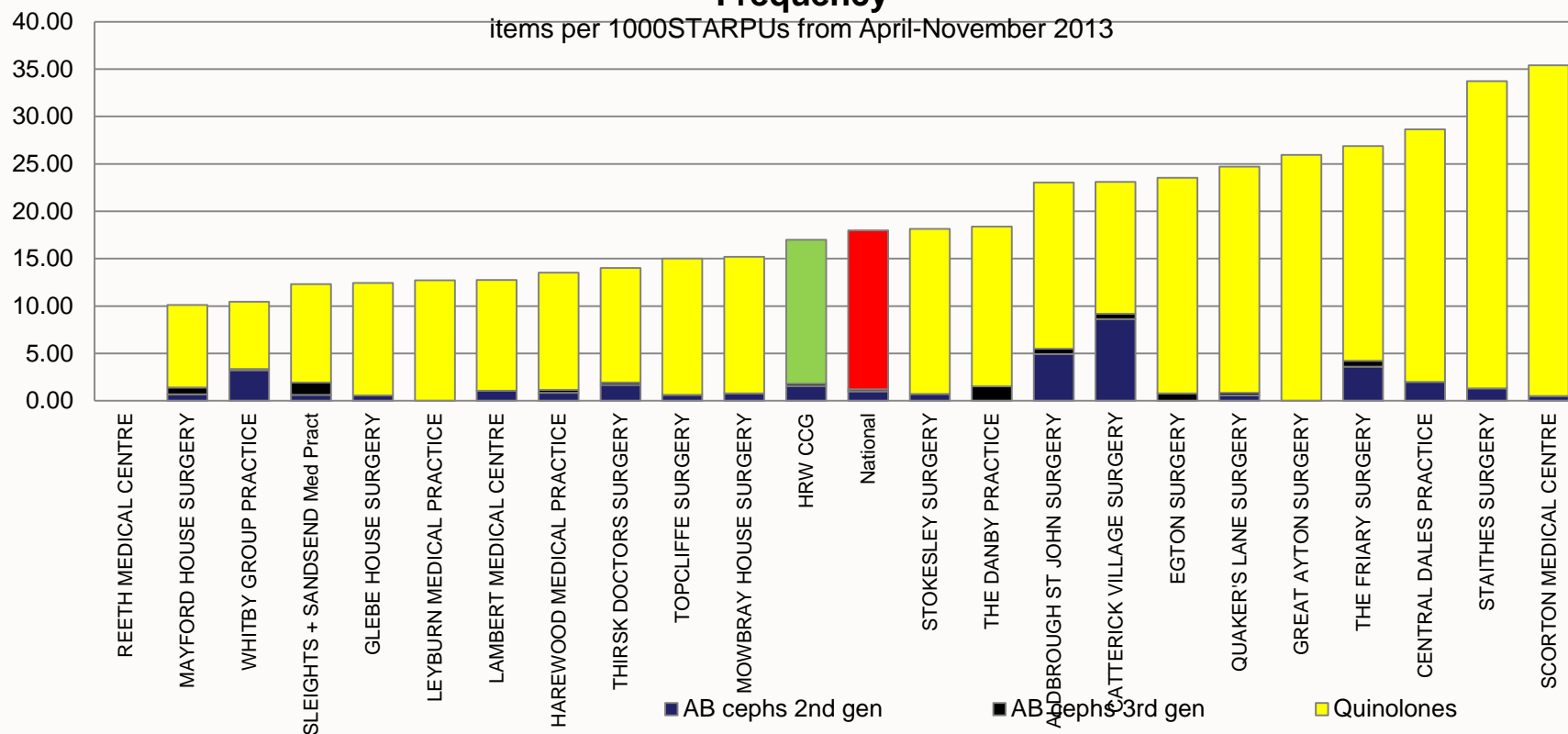
Cephalosporin and Quinolone Prescribing Frequency

items per 1000STARPUs from April-November 2013

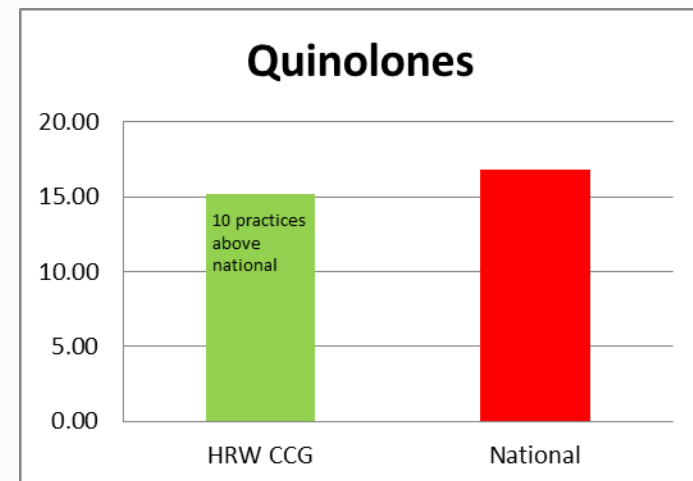
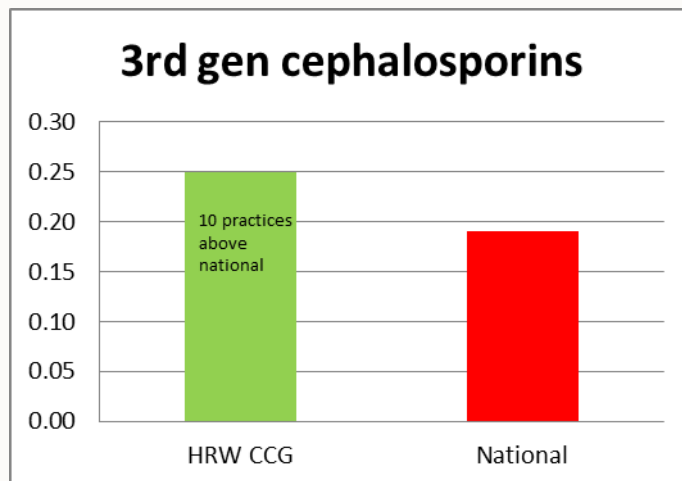
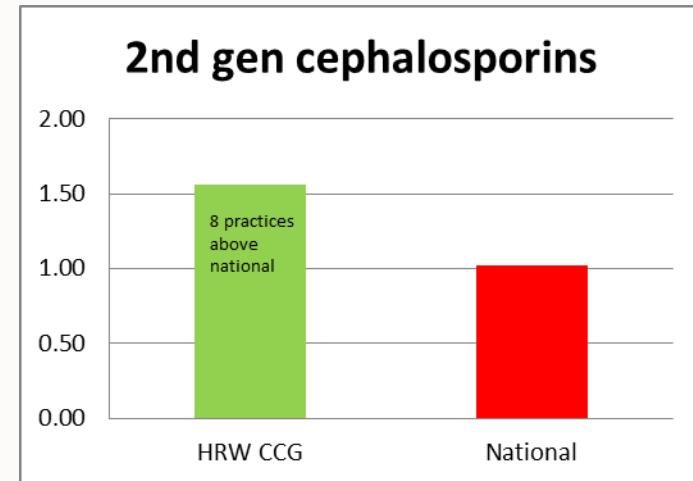
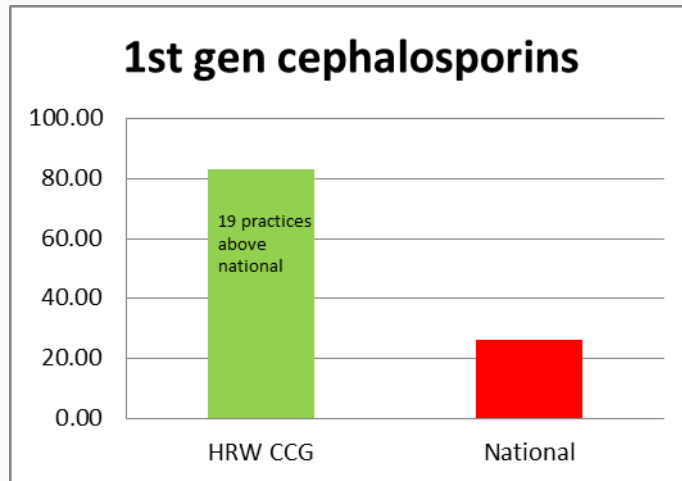


Practice comparison

2nd + 3rd generation Cephalosporins and Quinolones Prescribing Frequency



HRW CCG antibiotic prescribing rates; April to November 2013 (items weighted by 1000STARPU's)



Reducing risk from prescribing

- NY Guidance for Use of Antimicrobials in Primary Care

<http://www.hdft.nhs.uk/acute-and-cancer-care-directorate/infection-prevention-and-control/community-infection-prevention-and-control/>

- ‘Raise the threshold’ – especially shortly after hospital discharge when risk of C.difficile is higher
- Prescribing formulary constraints
- Sensitivity reports from labs – do they need to routinely report cephalosporins
- Association with other drugs, e.g. PPIs

Reducing risk from prescribing

Basically:

- We need to ensure we do not use 2nd and 3rd generation cephalosporins and quinolones, outside of prescribing guidelines. If we do want to use them, the medical microbiologists at South Tees Trust are happy to advise, as other alternatives can sometimes be suggested.
- All prescribing of antibiotics must be minimised. All too often we still see swab results being treated, not patients; and asymptomatic colonisation being treated (eg asymptomatic bacteriuria) , and non-specific conditions being treated with antibiotics (eg cough, many of which are not even infections at all).
- Some of the severe cases of C.diff I have reviewed have received unnecessary antibiotics. Thus antibiotics can kill!

Dr John Hovenden
Consultant Microbiologist, South Tees Hospitals

Activity to date

Established Groups:

- DCIC Team work plan ongoing: strategic plans
- NYY HCAI forum: regional wide group; Sharing best practice
- HRW CCG Task & finish Group: targeting more local issues
- STHFT CDI reduction action plan (monitored by CCG)

Focus includes:

- Route cause analysis on all cases to date to identify themes/source links
- Raising awareness & further education/updates
- Supporting patients in the community with CDI
- Ensuring early identification of those individuals at risk from developing CDI (both in acute and community settings)

Next steps

- Collaborative approach
- CDI reduction task and finish group
- Your contribution