CRP point of care testing (POCT) supports prudent antibiotic prescribing in Primary Care

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INTRODUCTION

- CRP (C-reactive protein) is a blood test marker of infection and inflammation
- Generally high in bacterial infection and low in viral infection
- Patients with no evidence of bacterial infection = DO NOT GIVE ANTIBIOTICS
- Public Health Agenda – prudent prescribing contributes to reduction in antimicrobial resistance and *Clostridium difficile* infection

AIMS

- Determine whether finger prick CRP POCT (Figure1) in an outlier prescribing GP practice on Anglesey reduces antibiotic prescribing
- Investigate if CRP POCT is cost effective
- Roll out a CRP POCT service for Primary Care and identify funding

METHOD

- Collaboration- Blood Sciences/POCT, Pharmacy, Primary Care, Public Health, Health Economics and Industry implemented CRP POCT testing to support clinical judgement as recommended by NICE guidelines (NICE CG 191, Figure 2)
- Implemented using All Wales POCT policy – analyser selection, validation, governance, training, competency, QC (IQC and EQA), clinical advice, troubleshooting, education and audit
- Patient and user forums with questionnaires used for feedback
- Audit of patient and prescribing outcome using case notes

RESULTS

- Contributed to CRP POCT Primary Care guidelines(1)
- Reductions in antibiotic prescribing were >20%(2) (Welsh Government target 5%)
- Rule out (CRP <20) consistently ~80% in patients tested
- Reductions in antibiotics replicated across 10 further surgeries over the last 2 years (1 surgery has reduced by 30%)
- Costs include analyser, reagent, connectivity, staff time and POCT/Blood Sciences support

CONCLUSION

- CRP POCT reduces antibiotics and is cost effective(3)
- Engagement with prescribers and operators in GP practices with POCT team support is essential to deliver this patient centered service with successful outcomes
- Funding challenges remain for this evidence based service

Figure 1 CRP POCT

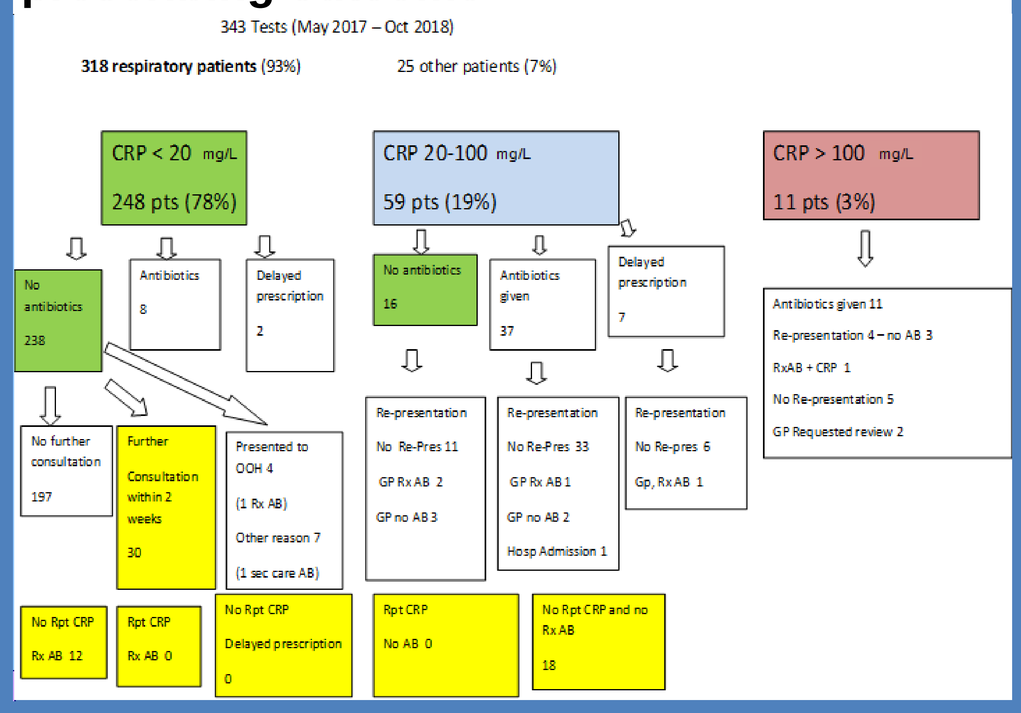
Figure 2 NICE clinical guideline CG 191

CRP <20mg/L – do not offer routine antibiotics

CRP 20 – 100mg/L – consider delayed antibiotic prescription for use if symptoms worsen

CRP >100mg/L – offer antibiotic therapy

Figure 3 Practice audit – patient and prescribing outcome



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