Nurse Prescribing in Cardiology

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Objectives

- Nurse prescribing for cardiology: where are we now?
- What are nurses prescribing in cardiology?
- The range of cardiology drugs prescribed and new products on the horizon
- Improving outcomes
- Issues and challenges around prescribing in cardiology
Nurse prescribing for cardiology: where are we now?
Where are we indeed?!

GPs overruled on nurse prescribing
22 December 2006

The Government gave the green light to a radical expansion in non-medical prescribing despite the overwhelming opposition of medical groups, writes Gareth Iacobucci.

Documents obtained by Pulse under the Freedom of Information Act reveal the extent of disquiet among doctors about the move to provide access to the whole BNF.

2006
Reflections ...

- Prior to access to the BNF
  - Patient group directions
  - Supplementary prescribing – where a diagnosis already established ‘by a doctor or dentist’
  - Independent prescribing – for a *limited* no of drugs, for a *limited* no of conditions
  - Call a doctor
  - Do nothing...?
And wait.....

- And wait
- And wait
- And wait
- And wait a bit longer
Prior to access to the BNF

- Coronary disease added to the list of conditions that could be treated in about 2005
- So GSL or P meds could be prescribed (aspirin, GTN)
- Restricted list of POMs eg beta blocker
- NO anti-anginals
- NO antiplatelet other than aspirin
‘Access to the BNF’

• Prescribing is about access to treatment
  – Timeliness
  – Patient experience

• Access to the BNF – more appealing in secondary care

• Take-off from 2007

Nurses prescribing medicine would put patients' health at risk, doctor warns


The decision to allow nurses to prescribe dangerous medicines is putting patients at risk, a leading doctor claimed last night.

The number of powerful drugs they hand out, including antibiotics and anti-depressants, has more than tripled since prescribing rules were relaxed.

An expert said it means nurses could be prescribing unsuitable medicines.
Where are we now?

- i5 Health – Non-medical prescribing – an economic evaluation (Sept 2015)
- Qualifications issued by Universities – 58 497
- Registered with NMC – 53 582 (will be duplicates)
- In Acute Trusts – 9 674 (est) – England only
- In Cardiology – who knows???
What are nurses prescribing in Cardiology?

How are we using our prescribing skills?
How are we using our prescribing skills?

- Front door – cardiology outreach
- RACPC
- Heart Failure
- Arrhythmias, device management
- Inpatient areas
- Pre-admission clinics – medial and surgical?
- Cardiac surgery, ICU, CCU
- Cardiac rehabilitation
Cardiology Outreach

Chris

- ED chest pain presentation
- Get the information needed to make an early diagnosis – liaison
- Differential diagnosis, advising management
- Right treatment right patient right time
- Early access to diagnostics

• Early access to treatment • RIGHT treatment, right time
RACPC

• Jan 😊— RACPC— Chest Pain
• 69 year old man; new onset stable angina with rapidly deteriorating symptoms
• ECG normal at GP, Anterior TWI in clinic
• To admit, or not to admit?
• Aspirin, beta blocker, GTN, clopidogrel, statin
• DC angio?P booked next day

Preventing admission
Preventing MI?
Improving access to treatment
Heart Failure
Heart Failure

- Helen – Heart Failure ANP, acute care – New prescriber – ‘haven’t done much’
  - Saw a patient in AGM and recommended increasing the dose of loop diuretic despite deteriorating renal function as the patient was severely fluid overloaded
  - Had already been in hospital for 2/52 and AGM had made no advances in reducing fluid status – converted too early to oral diuretics aiming for early discharge
  - Pt continued to lose fluid and was eventually converted to oral diuretics, and discharged successfully
  - ‘Haven’t done much…..?’

- Made her better, expedited SAFE discharge
- Likely prevented readmission
Heart Failure – Valve disease

• Becca – Heart Failure ANP, acute care
  • A lady with end stage valve disease – wanted to go home to her daughter and her dog – this before IV furosemide was available in the community. I ended up prescribing metolazone the day before discharge – usual caution with stable at discharge was out the window!
  • Made sure she had detailed instructions for if she was offloading too well over the weekend, follow up for bloods with the CHFN - a bold first prescription

• Principles of patient involvement, patient priority, and safeguarding
• Patient centred care!
Heart Failure – OP clinics

- Helen – Consultant Nurse HF
- 66 year old man with HF of uncertain aetiology, AF
- Arrange investigations
- List of meds from letter:
  - Losartan 50mg od – (please switch to candesartan 8mg od)
  - Bisoprolol 7.5mg od – (please increase to 10mg od)
  - Digoxin 125 mcg od (please stop)
  - Furosemide 80mg am; 40mg pm (please stop pm dose)
  - Apixaban 5mg bd
  - Atorvastatin 20mg od
  - Allopurinol 100mg od
  - Please add spironolactone 25mg od

- Specialist advice, long term management of complex patients
Elaine: Device interrogation and management
Suppression of arrhythmias
Preventing admission, expediting front door assessment
Patient centred care

Mike: AF and complex arrhythmia management
Supporting patients
Advising colleagues (me!)
Point of contact
Pre-admission

- Katie; ANP – Cardiology liaison, PAC
- Patient awaiting a LACA in AF at the time of PAC, poor rate control. Ankle oedema, increasing SOB on minimal exertion – rate related - Prescribed oral furosemide
- PAC is outpatients – alternative is GP to prescribe – Friday afternoon?
- Patient improved in advance of procedure
  - Save GP appointment
  - Avoids cancelling the procedure
  - Prevented hospital admission
Follow up and Cardiac Rehab

• 69 year old lady; anterior STEMI 3 months earlier; single vessel PCI, good LV, no bystander disease

• Tired, poor effort tolerance, lethargy, poor concentration, can’t be bothered, vivid dreams, waking with central chest pain about once a week

• On aspirin 75mg od; bisoprolol 2.5mg od; ramipril 2.5mg od; atorvastatin 80mg od; ticagrelor 90mg bd

• ECG reduced amplitude anterior R wave, SR 52, no HF; BP 156/85

• Stop bisoprolol, start PPI, uptitrate ACE

• *Individualising medication, helping people feel better, improving access to secondary prevention*
Follow up

- Chest pain clinic patient
  - Successful PCI to LAD
  - Moderate disease in RCA – FFR negative
- 3 ED admissions since discharge with chest pain
  - 1. Increased bisoprolol from 5 mg to 10mg
  - 2. Started ISMN 20mg bd
  - 3. Added nicorandil 20mg bd
- Follow up clinic – exercise test normal, reduced bisoprolol, stopped nicorandil, stopped ISMN, started omeprazole
  - Patient reassured, felt better, no cardiac symptoms
  - Reduced waste, unnecessary prescription
'Statins ruined my life': Darling of the gossip columns PETRONELLA WYATT reveals how she conquered high cholesterol


Statins ARE safe and we should give them to six million more people because benefits outweigh any harm, says biggest study ever

By Sophie Borland, Health Editor For The Daily Mail 00:18, 09 Sep 2016, updated 00:17, 16 Sep 2016

Statins war: Last week The Lancet told us the pills really were safe... but now a rival medical journal says they've got it wrong

By Sophie Borland and Ben Spencer for the Daily Mail 00:25, 16 Sep 2016, updated 07:55, 16 Sep 2016
Let’s NOT take the Daily Mail too seriously....

Who wrote that?

The man with scissors in his head, the world's first penis transplant and the husband who was nagged out of a coma: We look back at the most weird and wonderful health stories of the past year

By Kate Pickles For Mailonline
Communication and advice

• I’m convinced this is heart failure but can’t find any clinical signs...
  • HEFPEF?
  • I can’t get the AF rate down
  • Ticagrelor or clopidogrel?
  • To ACE or not to ACE?

• Advice—dose of statins—secondary prevention targets...
  • Can we refer?
  • GTN TTO
  • Access to investigation
  • Which beta blocker?
  • Which statin?
  • Can I stop beta blockers?
The range of cardiology drugs prescribed and new products on the horizon
What’s new?

• Entresto... Sacubitril valsartan

• ‘PARADIGM-HF (Prospective Comparison of ARNI [Angiotensin Receptor–Neprilysin Inhibitor] with ACEI [Angiotensin-Converting–Enzyme Inhibitor] to Determine Impact on Global Mortality and Morbidity in Heart Failure Trial), which showed that the angiotensin receptor–neprilysin inhibitor LCZ696, as compared with angiotensin-converting–enzyme (ACE) inhibitors alone, might improve the prognosis in patients with heart failure and a reduced ejection fraction’

Sacubitril valsartan

- Sacubitril valsartan (Entresto) is ‘recommended as a possible treatment for people with chronic heart failure if:
  - they have moderate to very severe (New York Heart Association class II to IV) symptoms
  - they have a left ventricular ejection fraction (the amount of blood pumped from the left side of the heart) of 35% or less
  - they are already taking a stable dose of ACE inhibitors or ARBs.

- NICE (27.04.2016) – 3 months
- ARB + neprolysin inhibitor
- £45.78 / 28 days ??
Neprolysin?

- HF (REF)
  - Produces BNP
  - BNP promotes excretion of salt + H₂O
  - Neprolysin breaks down BNP
  - Inhibiting neprolysin inhibits breakdown of BNP
  - Allows BNP to act longer
  - Facilitates excretion of salt + H₂O
PCSK9 inhibitors....

• ‘Proprotein convertase subtilisin/kexin type 9’
• Alirocumab & Evolocumab
• MAB – monoclonal antibodies
• Statins lower cholesterol by inhibiting the synthesis of cholesterol and by causing the liver to upregulate the number of clearance receptors
• PCSK9 inhibitors work by
  – promoting the modulation of the receptor that clears cholesterol (LDL-R)—if you give the drug, you prolong the receptor and clear more cholesterol
  – Blocking PCSK9, results in increased availability of LDL-R to remove LDL-C from the circulation
• Injectable –
  • alirocumab every 2 weeks
  • evolocumab 2-4 weeks
Alirocumab is recommended as an option for treating primary hypercholesterolaemia or mixed dyslipidaemia, only if:

- Low-density lipoprotein concentrations are persistently above the thresholds specified in table 1 despite maximal tolerated lipid-lowering therapy. That is, either the maximum dose has been reached or further titration is limited by intolerance...

The company provides alirocumab with the discount agreed in the patient access scheme.

<table>
<thead>
<tr>
<th>Without CVD</th>
<th>With CVD</th>
<th>High risk of CVD ¹</th>
<th>Very high risk of CVD ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary non-familial hypercholesterolaemia or mixed dyslipidaemia</td>
<td>Not recommended at any LDL-C concentration</td>
<td>Recommended only if LDL-C concentration is persistently above 4.0 mmol/l</td>
<td>Recommended only if LDL-C concentration is persistently above 3.5 mmol/l</td>
</tr>
<tr>
<td>Primary heterozygous-familial hypercholesterolaemia</td>
<td>Recommended only if LDL-C concentration is persistently above 5.0 mmol/l</td>
<td>Recommended only if LDL-C concentration is persistently above 3.5 mmol/l</td>
<td></td>
</tr>
</tbody>
</table>

¹High risk of cardiovascular disease is defined as a history of any of the following: acute coronary syndrome (such as myocardial infarction or unstable angina requiring hospitalisation), coronary or other arterial revascularisation procedures, chronic heart disease, ischaemic stroke, peripheral arterial disease.

²Very high risk of cardiovascular disease is defined as recurrent cardiovascular events or cardiovascular events in more than 1 vascular bed (that is, polyvascular disease).
Improving outcomes
Improving outcomes

Nurse independent prescriber qualification has had little overall impact on prescribing

14 February 2014 | By Caroline Price

The proportion of primary care prescribing undertaken by nurses was just 0.4% in the...
Outcomes?

- Early access to treatment
- RIGHT treatment, right time
- Preventing admission
- Preventing MI?
- Improving access to treatment
- Made her better, expedited SAFE discharge
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- Principles of patient involvement, patient priority, and safeguarding
- Specialist advice, long term management of complex patients
- Preventing admission, expediting front door assessment
- Patient centred care
- Supporting patients
- Advising colleagues (me!)
- Point of contact
- Save GP appointment
- Avoids cancelling the procedure
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- Individualising medication, helping people feel better, improving access to secondary prevention
- Patient reassured, felt better, no cardiac symptoms
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Issues and challenges around prescribing in cardiology
The evidence base

• NMP is safe and clinically appropriate
  • NMP has been found to deliver a similar level of care as provided by GPs and generates a higher satisfaction rating for patients
  • Patient acceptability of NMP is high
  • NMP is viewed positively by other health care professionals
  • NMP is becoming a well-integrated and established means of managing conditions and improving access to medicines

• Few documented disadvantages...amongst these are concerns related to safety and cost – both of which appear to be unsubstantiated
Issues and challenges

- Lack of hard data
- Literature too scarce and unreliable to make an impact
- Current growth in NMP about 7% p.a.
- Demonstrating the economic impact
- Too much anecdotal evidence
- No outcome studies

- ‘standing in the middle’
- Disparity between patient and medical focus
- Challenging guidelines
- ‘being in the know’
Where next for prescribing?

• Consultation skills
• Content analysis of consultation
  – Comparative?
• Adherence measures
• Target achievement
  – Secondary prevention
Thank you for listening

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**FOUR HOSPITALS, ONE TRUST, ONE VISION**