

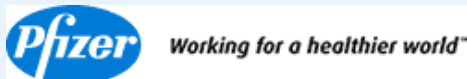


Welcome to GMCCSN

North West Heart Failure Nurses Forum

The Park Royal, Cheshire – Garden Suite
Wednesday 23rd November 2011

Kindly sponsored by Pfizer and Takeda





Programme

- 09:00 – 09:30 **Coffee & Registration**
- 09:30 – 09:40 Welcome & Introduction – *Angela Graves*
- 09:40 – 10:25 A NICE Update on the Management of Chronic Heart Failure – *Simon Williams*
- 10:25 – 10:50 Living with Heart Failure – *Fergal Searson*
- 10:50 – 11:00 **COFFEE**
- 11:00 – 11:30 Heart Failure Register Validation Project – *Lauren Butler and Cath Richardson*
- 11:30 – 12:00 Update on Electrical Therapies for Patients with Heart Failure – *Neil Davidson*
- 12:00 – 12:15 Question & Answer
- 12:15 Evaluation & **Lunch**



Final note

Please remember to hand back your completed evaluation form and feel free to make any further suggestions on the form under '*any other general comments*'

Available presentations from the event will be posted to our website www.gmccsn.nhs.uk – you will receive notification when they are online

You can now also follow up on Twitter @michellecdavies



North West Heart Failure Nurses Forum

WELCOME

TODAY

- Welcome
- Thank you to our sponsors, and Greater Manchester and Cheshire Cardiac and Stroke Network
- House keeping- mobiles
- Please fill in the evaluation
- ENJOY THE DAY



Chronic Heart Failure (CHF): A NICE update

Simon Williams

Consultant Cardiologist & Honorary Senior Lecturer



CHRONIC HEART FAILURE

National clinical guideline for diagnosis and management
in primary and secondary care

August 2010

CHF Definition

- Multiple and inadequate definitions
- “Inability of the heart (cardiac pump) to deliver adequate oxygenation (via blood flow) to tissues”
- Different types (and definitions):
 - Acute vs. Chronic
 - Left vs. Right
 - Symptomatic vs. Asymptomatic
 - Systolic vs. Diastolic

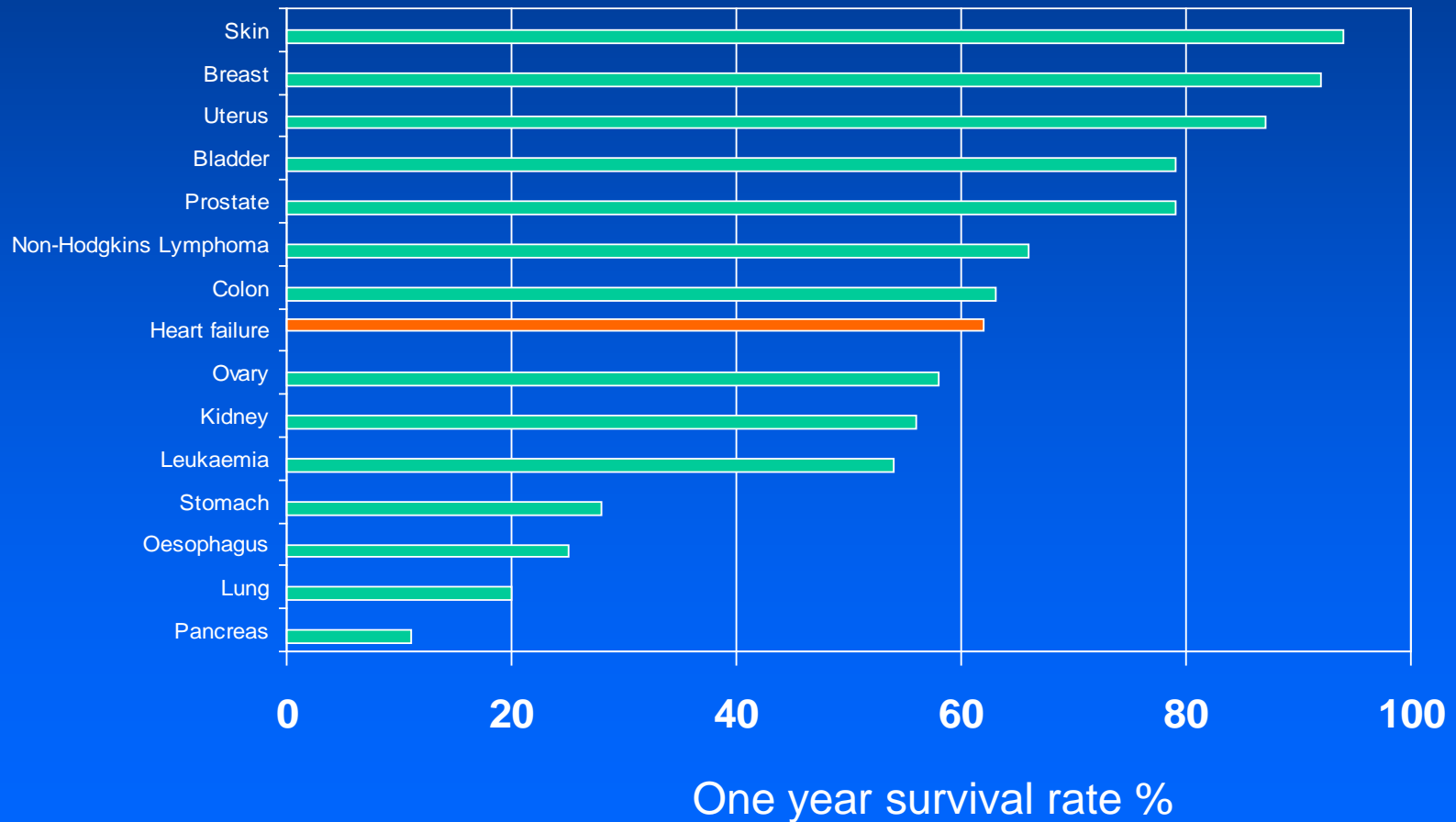
Chronic heart failure

- Evidence of left ventricular dysfunction with or without symptoms or clinical signs

Epidemiology

- Increasing in prevalence
- Affects 1-2% of UK population
- Estimated 2-5% population over 65 years (10% over 75 years)
- Many undiagnosed
- Commoner in Western world
- Major burden on health care resources
- Worse prognosis than many forms of cancer

The prognosis of heart failure is as bad as for many cancers



Aetiology

- Commonest cause is IHD
- Other main cause “dilated cardiomyopathy” (DCM)
- Other causes: alcohol, viral (post myocarditis), HBP (LVH), valvular disease

Symptoms

- Breathlessness (SOB)
- Orthopnea
- PND
- ankle oedema
- fatigue

Assessment of NYHA class

NYHA functional classification, 1964

Class I	No limitations on activity. No fatigue, breathlessness or palpitation on ordinary physical activity		Annual mortality 3-5%
Class II	Patients are comfortable at rest but ordinary physical activity such as climbing stairs or doing housework results in symptoms	‘Mild’ heart failure	Annual mortality 10%
Class III	Patients have a marked limitation of physical activity. Although patients are comfortable at rest, less than ordinary physical activity will lead to symptoms	‘Moderate’ heart failure	Annual mortality 12-16%
Class IV	Patients have symptoms even at rest and are unable to undertake any physical activity without discomfort	‘Severe’ heart failure	Annual mortality 15-20% Worse prognosis than most cancers

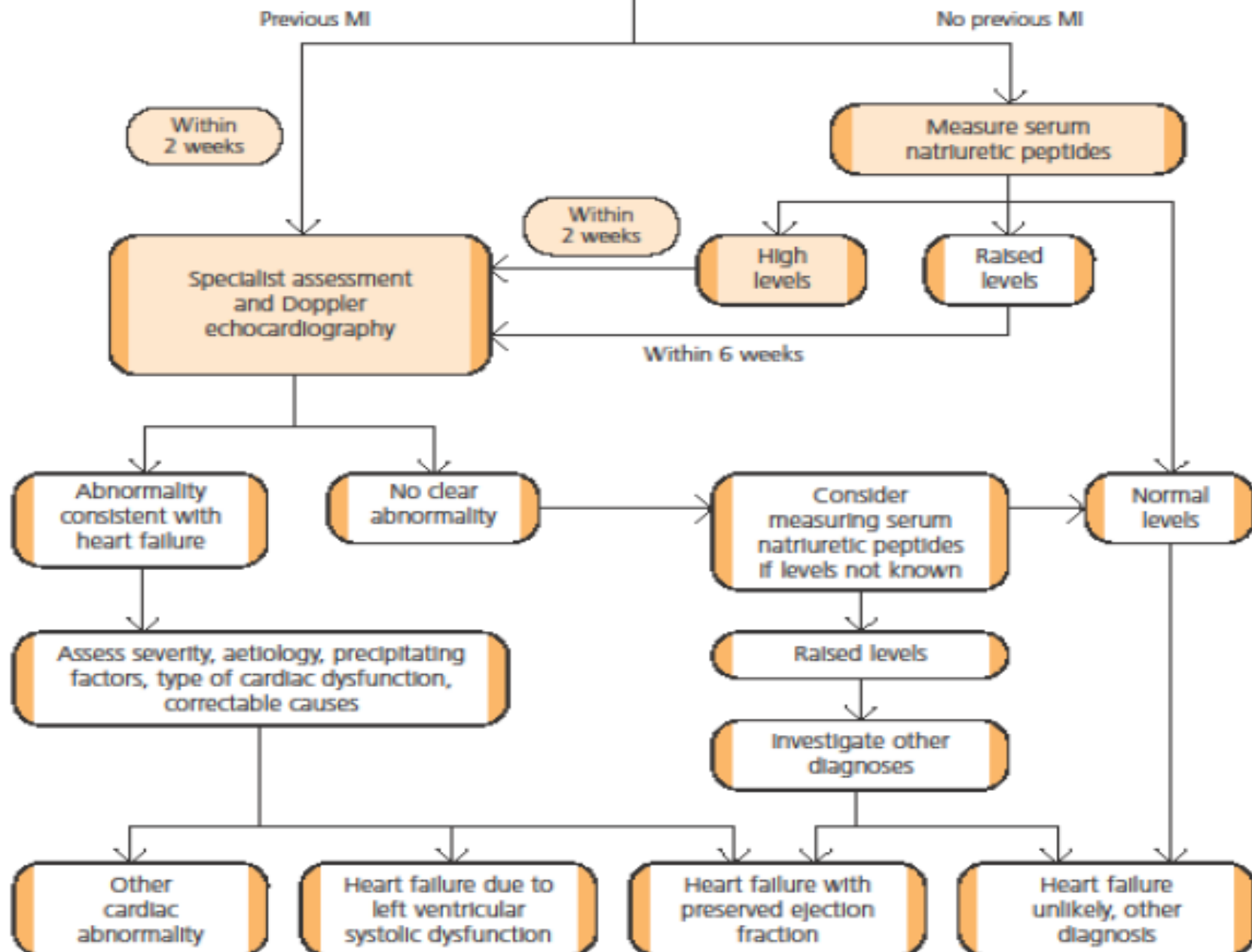
Clinical signs

- Tachycardia
- hypotension
- raised jugular venous pressure
- “gallop rhythm” - addition of 3rd or 4th heart sound
- congested lung fields
- ankle oedema

Diagnosis

- Can be difficult
- Refer to UK NICE Guideline (partial update 2010)

Take a detailed history and perform a clinical examination



CHF updated NICE guidance 2010

Diagnosis

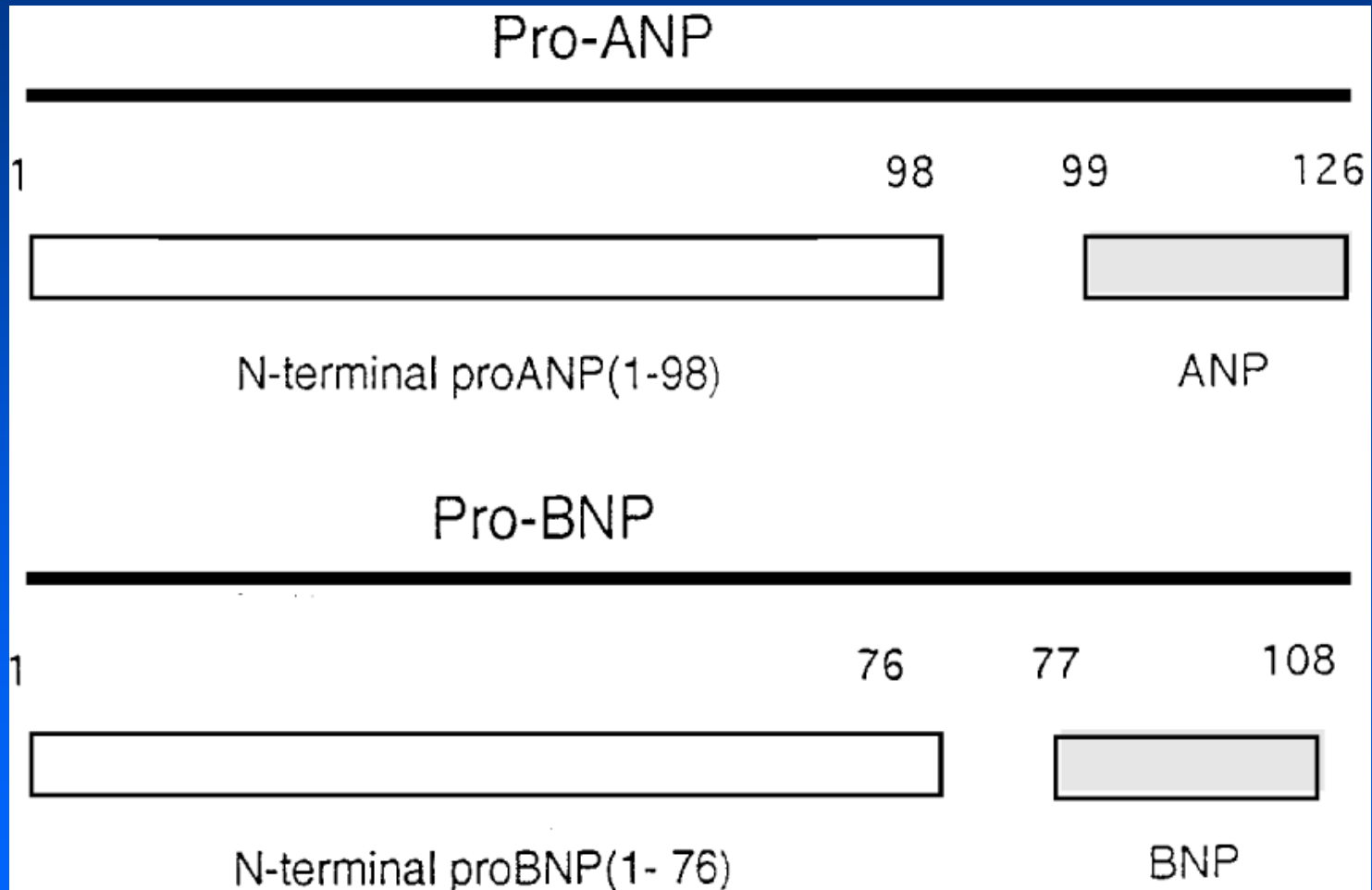
1. Refer patients with suspected heart failure and previous myocardial infarction (MI) urgently, to have transthoracic Doppler 2D echocardiography and specialist assessment within 2 weeks. **[new 2010]**
2. Measure serum natriuretic peptides (B-type natriuretic peptide [BNP] or N-terminal pro-B-type natriuretic peptide [NTproBNP]) in patients with suspected heart failure without previous MI. **[new 2010]**
3. Because very high levels of serum natriuretic peptides carry a poor prognosis, refer patients with suspected heart failure and a BNP level above 400 pg/ml (116 pmol/litre) or an NTproBNP level above 2000 pg/ml (236 pmol/litre) urgently, to have transthoracic Doppler 2D echocardiography and specialist assessment within 2 weeks. **[new 2010]**

Treatment

BNP

- Stored in ventricles as pro-BNP
- Secreted in response to ventricular stretch or dilatation
- Cleaved into N Terminal pro BNP, N-BNP (inactive) and BNP (active) - promotes diuresis, natriuresis and vasodilatation
- Both BNP and N-BNP can be rapidly measured by radioimmunoassay or immunoluminometric assay from EDTA blood sample

BNP: Structure



Clinical uses of BNP

- **Screening and diagnosis**
- Prognostic and risk stratification
- Monitoring
- Treatment

Screening & Diagnosis

- Currently number one use for BNP in UK, in conjunction with ECG/echocardiography
- BNP is not a replacement for echocardiography
- Reliable test for excluding heart failure (high negative predictive value): Normal values virtually rule out a diagnosis of left ventricular systolic dysfunction

Diagnosis (2)

- May streamline open access echocardiography service in primary care leading to efficient use of resources
- High levels are virtually diagnostic
- Intermediate levels require further investigation by echocardiography

Diagnosis (3)

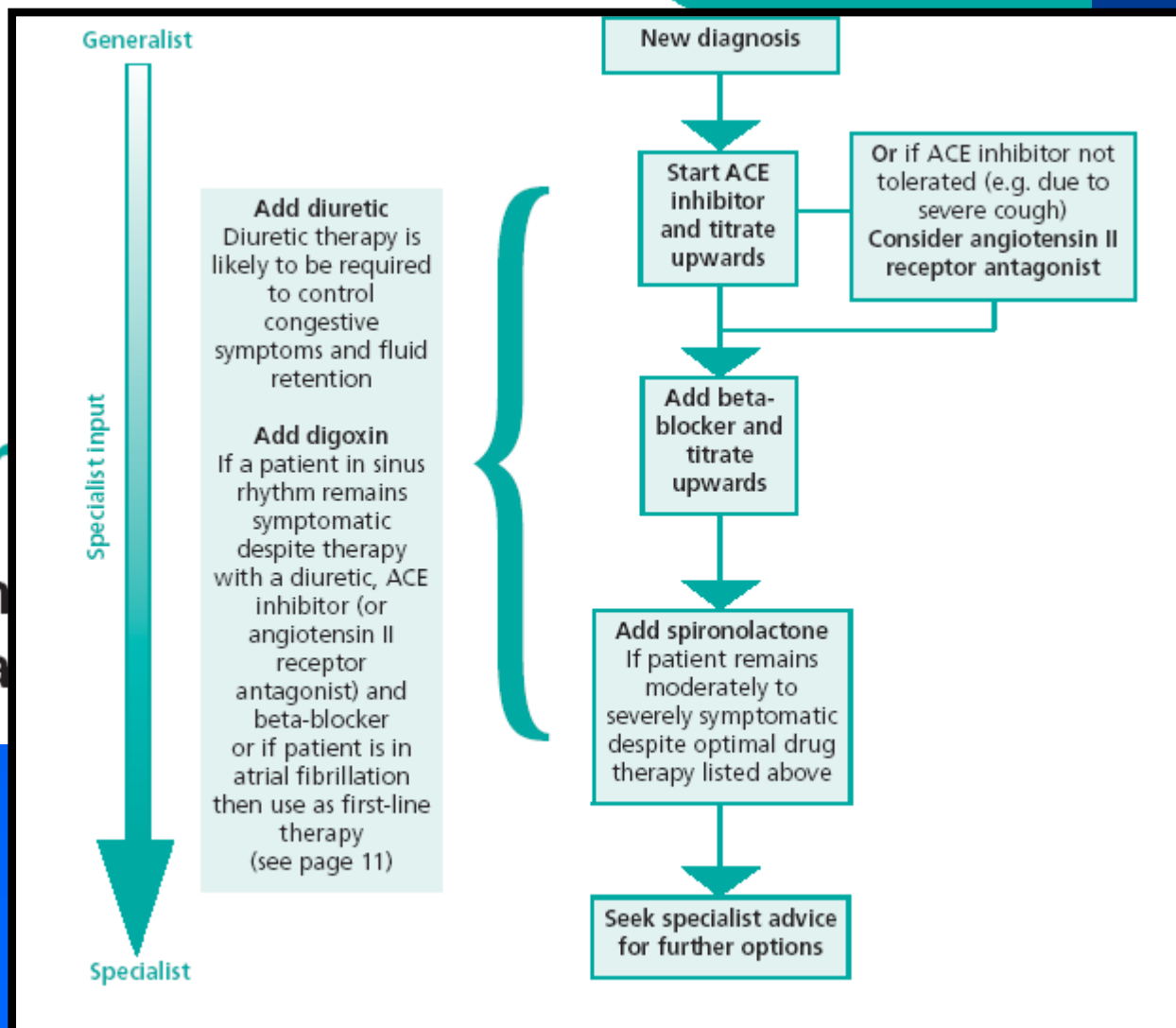
- More useful in detecting symptomatic heart failure than asymptomatic LV dysfunction
- Higher levels seen in LV systolic dysfunction than in diastolic dysfunction
- **NB.** Small or intermediate increases are seen in conditions that cause RV dilatation e.g. Chronic lung disease, PE and LVH (but lower than in LV dysfunction)

Optimal medical treatment of CHF

- Refer to UK NICE Guideline (partial update 2010) or ESC Guidelines (2008)
- Recent trial evidence (after guidance)

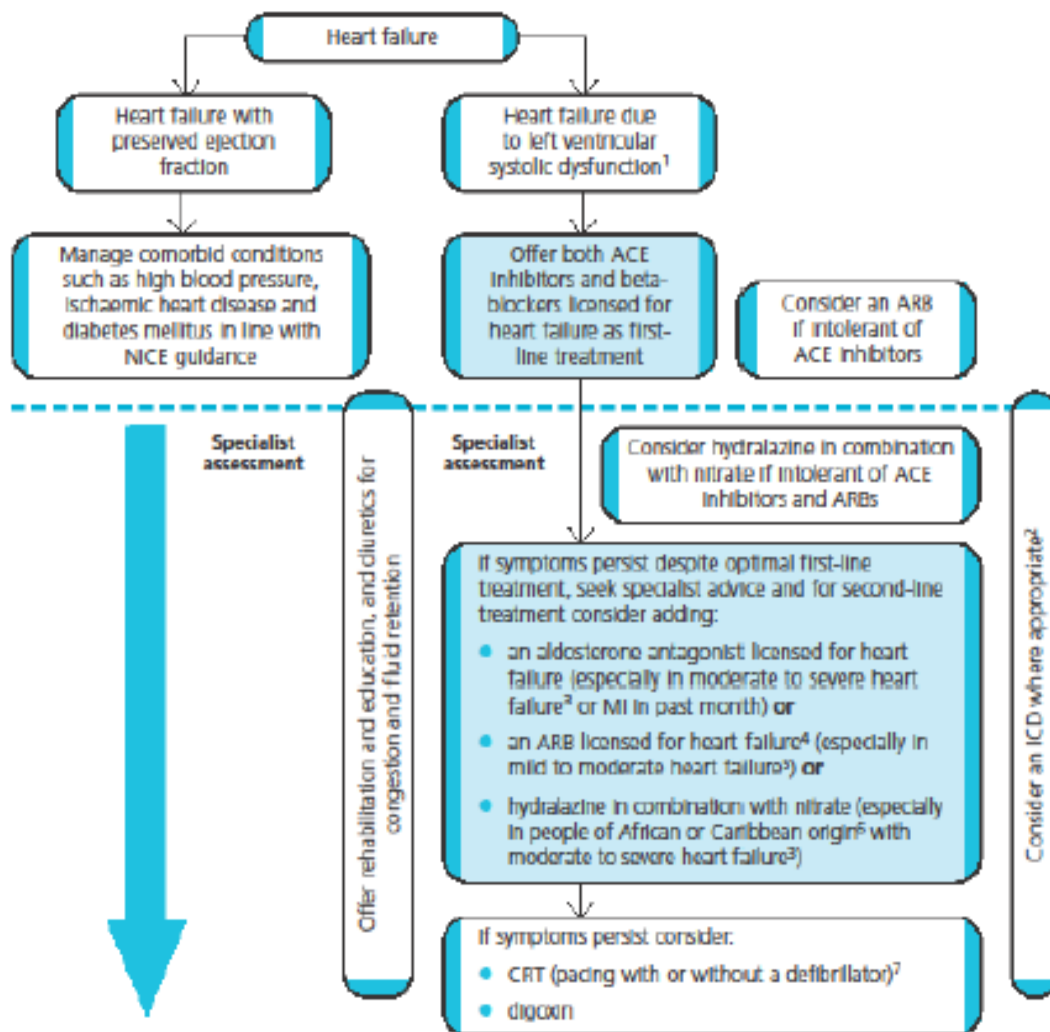
Chronic heart failure

Management of chronic heart failure in primary care



5.4 Treatment algorithm

Treating heart failure



¹ For more information on drug treatment see appendix J and 'Chronic kidney disease' (NICE clinical guideline 73).

² Consider an ICD in line with 'Implantable cardiovascular defibrillators for arrhythmias' (NICE technology appraisal guidance 95).

³ NYHA class III-IV.

⁴ Not all ARBs are licensed for use in heart failure in combination with ACE inhibitors.

⁵ NYHA class II-III.

⁶ This does not include mixed race. For more information see the full guideline at www.nice.org.uk/guidance/CG108

⁷ Consider CRT in line with 'Cardiac resynchronisation therapy for the treatment of heart failure' (NICE technology appraisal guidance 120).

CHF updated NICE guidance 2010

Treatment

4. Offer both angiotensin-converting enzyme (ACE) inhibitors and beta-blockers licensed for heart failure to all patients with heart failure due to left ventricular systolic dysfunction. Use clinical judgement when deciding which drug to start first. **[new 2010]**
5. Offer beta-blockers licensed for heart failure to all patients with heart failure due to left ventricular systolic dysfunction, including :
 - older adults and
 - patients with:
 - peripheral vascular disease
 - erectile dysfunction
 - diabetes mellitus
 - interstitial pulmonary disease and
 - chronic obstructive pulmonary disease (COPD) without reversibility. **[new 2010]**
6. Seek specialist advice and consider adding one of the following if a patient remains symptomatic despite optimal therapy with an ACE inhibitor and a beta-blocker:
 - an aldosterone antagonist licensed for heart failure (especially if the patient has moderate to severe heart failure [NYHA¹ class III-IV] or has had an MI within the past month) or
 - an angiotensin II receptor antagonist (ARB) licensed for heart failure² (especially if the patient has mild to moderate heart failure [NYHA class II-III]) or
 - hydralazine in combination with nitrate (especially if the patient is of African or Caribbean origin³ and has moderate to severe heart failure [NYHA class III-IV]). **[new 2010]**

ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure 2008

The Task Force for the Diagnosis and Treatment of Acute and Chronic Heart Failure 2008 of the European Society of Cardiology. Developed in collaboration with the Heart Failure Association of the ESC (HFA) and endorsed by the European Society of Intensive Care Medicine (ESICM)

Authors/Task Force Members: Kenneth Dickstein (Chairperson) (Norway)*, Alain Cohen-Solal (France), Gerasimos Filippatos (Greece), John J.V. McMurray (UK), Piotr Ponikowski (Poland), Philip Alexander Poole-Wilson (UK), Anna Strömberg (Sweden), Dirk J. van Veldhuisen (The Netherlands), Dan Atar (Norway), Arno W. Hoes (The Netherlands), Andre Keren (Israel), Alexandre Mebazaa (France), Markku Nieminen (Finland), Silvia Giuliana Priori (Italy), Karl Swedberg (Sweden)

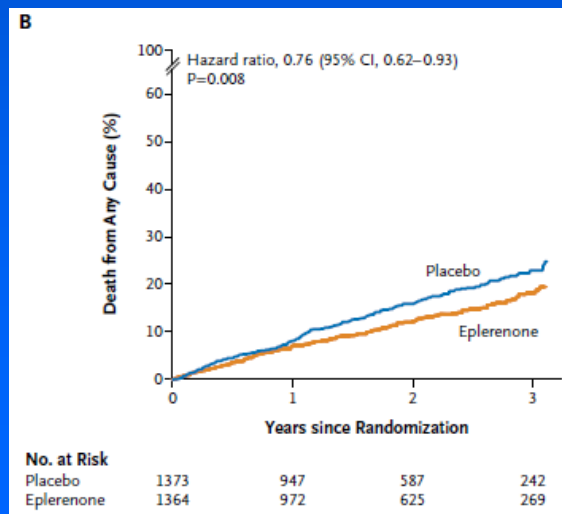
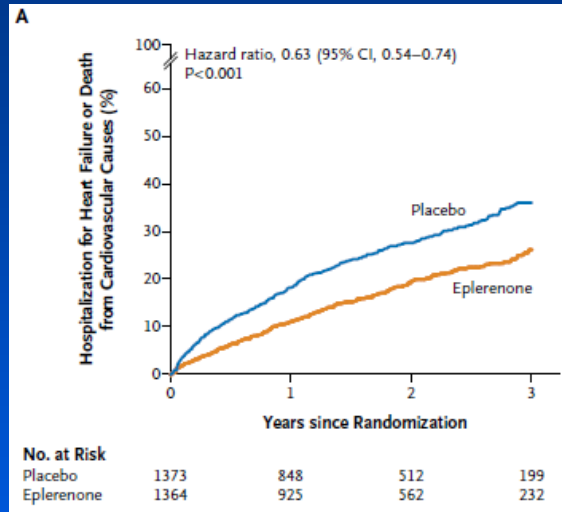
ESC Committee for Practice Guidelines (CPG): Alec Vahanian (Chairperson) (France), John Camm (UK), Raffaele De Caterina (Italy), Veronica Dean (France), Kenneth Dickstein (Norway), Gerasimos Filippatos (Greece), Christian Funck-Brentano (France), Irene Hellemans (The Netherlands), Steen Dalby Kristensen (Denmark), Keith McGregor (France), Udo Sechtem (Germany), Sigmund Silber (Germany), Michal Tendera (Poland), Peter Widimsky (Czech Republic), Inés Luis Zamora (Spain)

Document I
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Frederik W. A.

Table 22 CHF—choice of pharmacological therapy in left ventricular systolic dysfunction

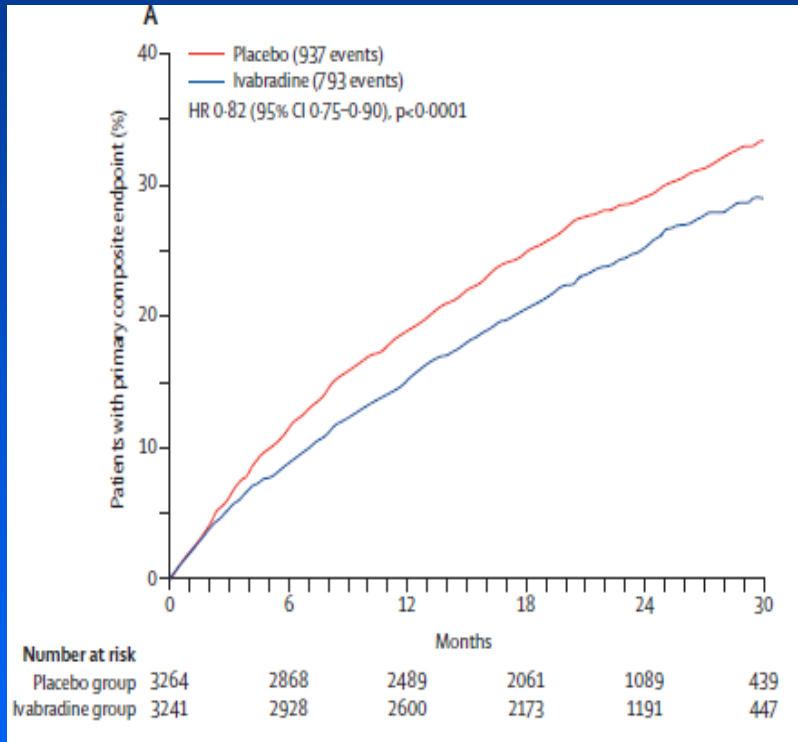
	ACE-inhibitor	Angiotensin receptor blocker	Diuretic	Beta-blocker	Aldosterone antagonists	Cardiac glycosides
Asymptomatic LV dysfunction	Indicated	If ACE intolerant	Not indicated	Post MI	Recent MI	With atrial fibrillation
Symptomatic HF (NYHA II)	Indicated	Indicated with or without ACE-inhibitor	Indicated if fluid retention	Indicated	Recent MI	(a) when atrial fibrillation (b) when improved from more severe HF in sinus rhythm
Worsening HF (NYHA III–IV)	Indicated	Indicated with or without ACE-inhibitor	Indicated, combination of diuretics	Indicated (under specialist care)	Indicated	Indicated
End-stage HF (NYHA IV)	Indicated	Indicated with or without ACE-inhibitor	Indicated, combination of diuretics	Indicated (under specialist care)	Indicated	Indicated

Eplerenone in NYHA class II heart failure: EMPHASIS



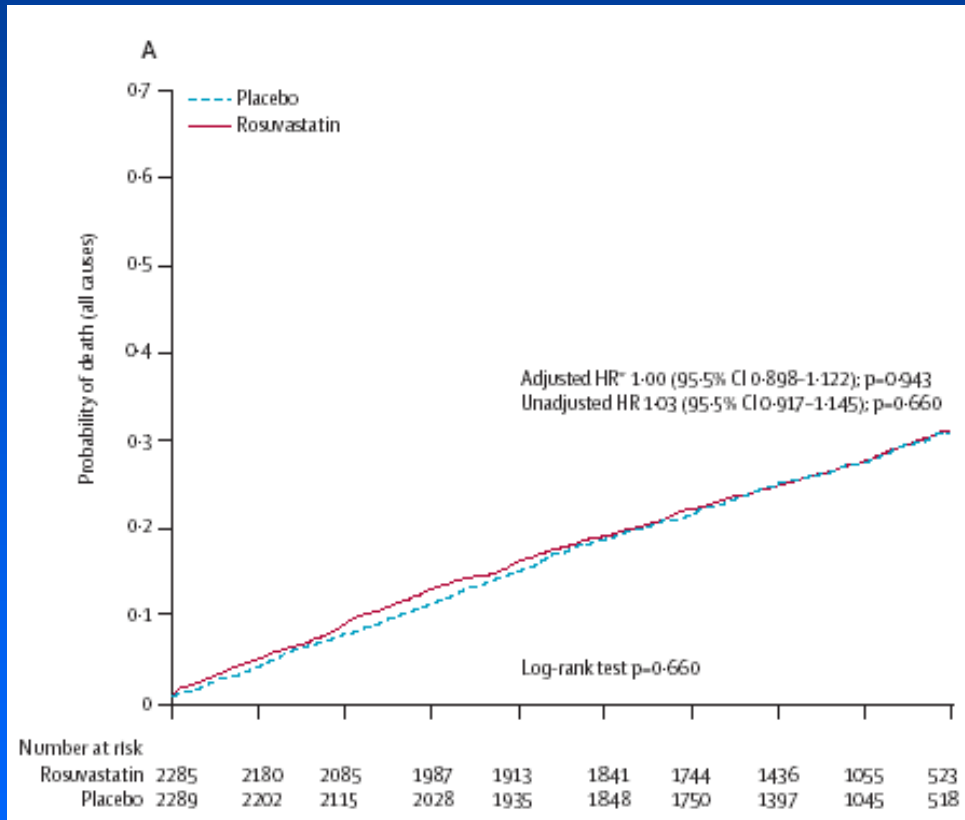
- 2737 patients with NYHA II, LVEF < 35%, mean age 68 years randomised to Eplerenone (mean dose 39 mg) or placebo in addition to standard Rx
- Trial stopped prematurely at (median of 21 months)
- 37% RRR in primary endpoint of CV death & HF hospitalisation (HR: 0.63 [0.54-0.74], P<0.001)
- 26% RRR in all cause mortality (HR: 0.74 [0.62-0.93], P=0.008 & 42% RRR in HF hospitalisation
- Significant increase in serum K in Eplerenone group

Ivabradine in CHF: SHIFT



- 6558 stable CHF patients with LVEF<35% randomised to ivabradine or placebo
- Previous hospitalisation within 1 year, HR >70 bpm (SR)
- Mean follow up 23 months, 89% on beta-blockers
- 18% reduction in primary endpoint of CV death or HF hospitalisation (95% CI: 0.75-0.90)
- 26% reduction HF hospitalisation (95% CI: 0.66-.083)
- 26 % reduction in progressive HF death (95% CI: 0.58-0.94)

GISSI-HF: Rosuvastatin



- 4574 patients with NYHA II-IV CHF randomised to Rosuvastatin vs placebo followed up for 3.9 years
- Primary endpoints: All cause mortality & combined all cause mortality & CV hospital admission
- No reduction in endpoints with Rosuvastatin
- Similar results to CORONA
- Statins not beneficial to patients with CHF

Summary

- CHF is a growing problem
- Diagnosis can be difficult
- BNP used as a screening test – not a replacement for echocardiography
- Ensure optimal medical therapy including new treatments

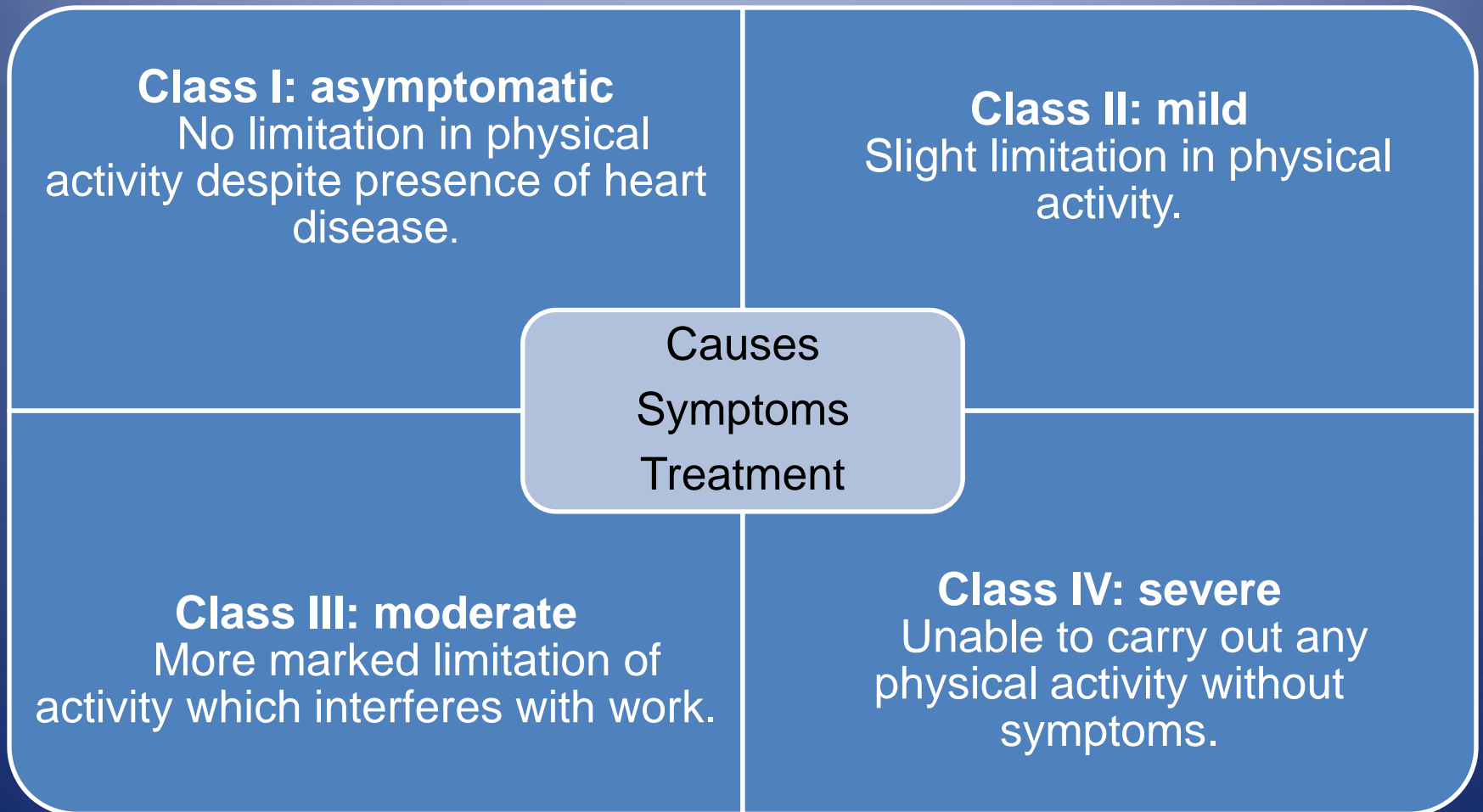
Living with Heart Failure

Fergal Searson

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New York Heart Association CHF Classification



International Classification of Functioning, Disability and Health

Impairment

- Ekman et al (2000)
- Mahoney (2001)
- Rhodes et al (2002)
- Zambroski (2003)
- Aldred et al (2004)
- Mair et al (2004)
- Nordgren et al (2007)
- Yu et al (2007)
- Thornhill et al (2008)
- Ryan (2009)
- Allen et al (2009)
- Yun-Hee et al (2010)

Activity

- Rogers et al (2002)
- Riegel et al (2002)
- Horowitz et al (2003)
- Europe et al (2004)
- Willems et al (2006)
- Paton et al (2007)
- Pattenden et al (2007)
- Falk et al (2007)
- Welstand et al (2009)
- Gallacher et al (2011)
- Pihl et al (2011)

Participation

Aims and Objectives

Aim

- Explore everyday experiences of patients with CHF

Objectives

- Explore their daily experiences
- Identify how they evaluate these experiences
- Ascertain how their evaluation guides their actions.

Narrative Inquiry

“Stories that people recount are useful because they provide information about the story teller’s internal world”

(McCance, McKenna and Boore, 2001).

“They move from ‘what actually happened’ to ‘how people make sense of what happened?’”

(Bryman, 2004p412)

Data Collection

Participants

- Six men; one woman.
- NYHA III or IV

Recruitment

- Convenience sample
- Heart Failure Nurse Specialist

Interviews

- Unstructured, two separate occasions

Data Analysis



Postcards

Labov and Waletzky (1967)

Gee (1991)

Postcard



Sorry that I have become like an old man who needs looking after and mollycoddling and who can no longer contribute as a proper partner.

Please don't chide me for doing too much; I do it because I feel guilty.

I feel like I am letting you down and that I have become a burden to you and that I am holding you back in your life.

Just remember that I am the same person in my head.

Labov and Waletzky (1967)

Abstract	<i>How do, ((traffic noise)) how do other people perceive you with it? You mentioned...</i>
Orientation	Er, yes some people it's unfortunate some people because they can't see your condition
Complicating Actions	tend to either hint that there's nothing wrong with you, you know they sort of say, "Well we can't see it so what's, what's actually wrong with you?" And you say oh well I've got, you know, "I've got a bad heart." "Well you look all right to me." And the other thing is when you go somewhere and somebody says to you, "My goodness you don't half look well." ((coughs))
Evaluation	You thought well if you only knew you wouldn't be saying you look well. It's, it's, it's sort of comments like that that tend to rub you up the wrong way
Resolution	But again you have to accept it. It's, it's all down to acceptance.
Coda	I mean I let things brush over.

Not looking ill

*Some people can't see your condition,
hint that there's nothing wrong with you.*

"Well we can't see it, what's actually wrong with you?"

"I've got a bad heart."

"Well you look all right to me."

If you only knew. I let things brush over.

Not believed

I don't look unhealthy, I look quite well.

When you say you've got heart failure they don't know what it means.

“But you look well enough, you should be able to do so and so.”

That's the problem.

I look well, they think I'm taking the Mickey a little bit

It's very difficult.

Embarrassed

They don't associate me with having a condition, they think I'm fine.

I'm stood there with a little hand bag type thing, my wife is stood there with two cases.

*It looks like – should you not be dragging her by her hair?
You know, caveman stuff.*

That really is embarrassing for me.

But unless you've got a sign round your neck that you haven't to lift heavy cases ...

but nobody every says anything.

Hiding

Once you get out of the car, when it's uphill, it's very, very hard.

*You have to stop, pretend you're looking in a shop.
I see people older than me going along, I'm (pant, pant).*

*So I just pretend, because you might get someone saying
"are you alright?"*

Yet there's nothing to be embarrassed about really.

Feigning

*Everybody keeps telling me how well I look.
So when I park, I just put me disabled badge up, I get out.
I, purposely, limp*

I'm thinking "he's not disabled"

But I am.

They can't see that.

It's one of those things,

I look well, but inside I'm not.

I hate to think that anybody was thinking I was a con.

Summary of Findings



Significance

Not looking ill and not being understood interferes with their ability to participate in and be accepted by society

Struggle with developing an identify that is recognised and accepted by society

What can be done

The stories need to be shared with as wide an audience as possible

They need to be encouraged and supported to participate

Limitations

It was a small cohort. The participants were mostly male, English, not working and in NYHA stages III-IV.

Further research would usefully explore the experiences of females and non-English heritage sufferers.

Acknowledgements

Professor Caroline Watkins

Doctor Beverley French



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Heart Failure Register Validation Project

Lauren Butler



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Annual death rate from HF

- Poor prognosis
 - (10 – 40% mortality per year)
- Poor quality of life
 - Poor exercise tolerance and >30% depression
- Frequent hospital admissions
 - 5% acute medical admissions (40% death/readmission within 1 year)
- Long LOS
 - 2% of in-patient bed days
- **Accounts 2% total NHS expenditure**



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QUESTION OF THE DAY

Are we achieving

optimum Rx

for

optimum number of people?

Background – missed cases

- Using QOF - prevalence for Lancashire and Cumbria Network is 0.9% (18,391 patients)
- It is expected that this is a substantial underestimate of the true prevalence level, likely 2.3% (46,999 patients)
- i.e 28,608 patients currently NOT benefitting from treatment known to produce massive change to their life /outlook



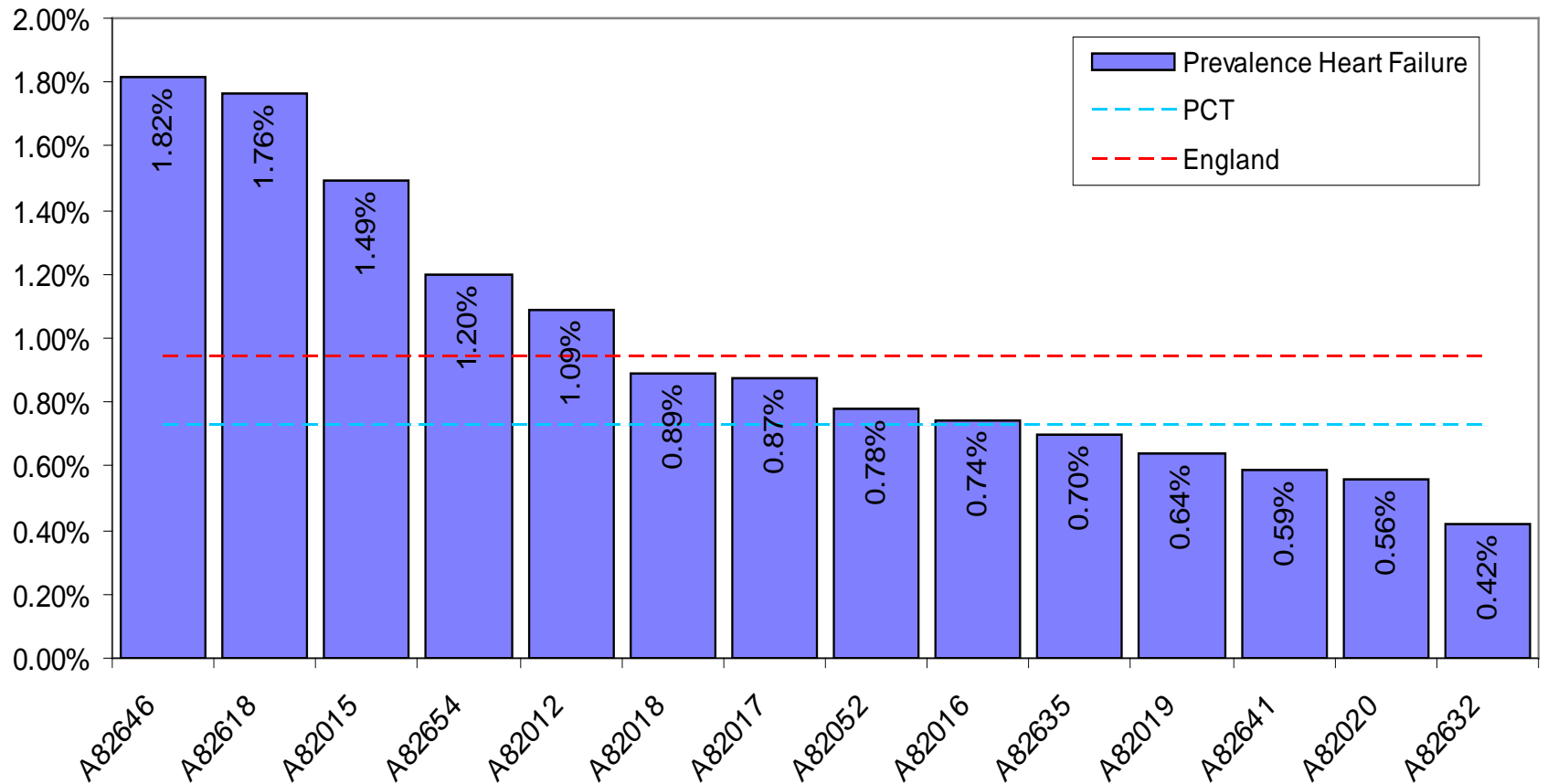
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Background

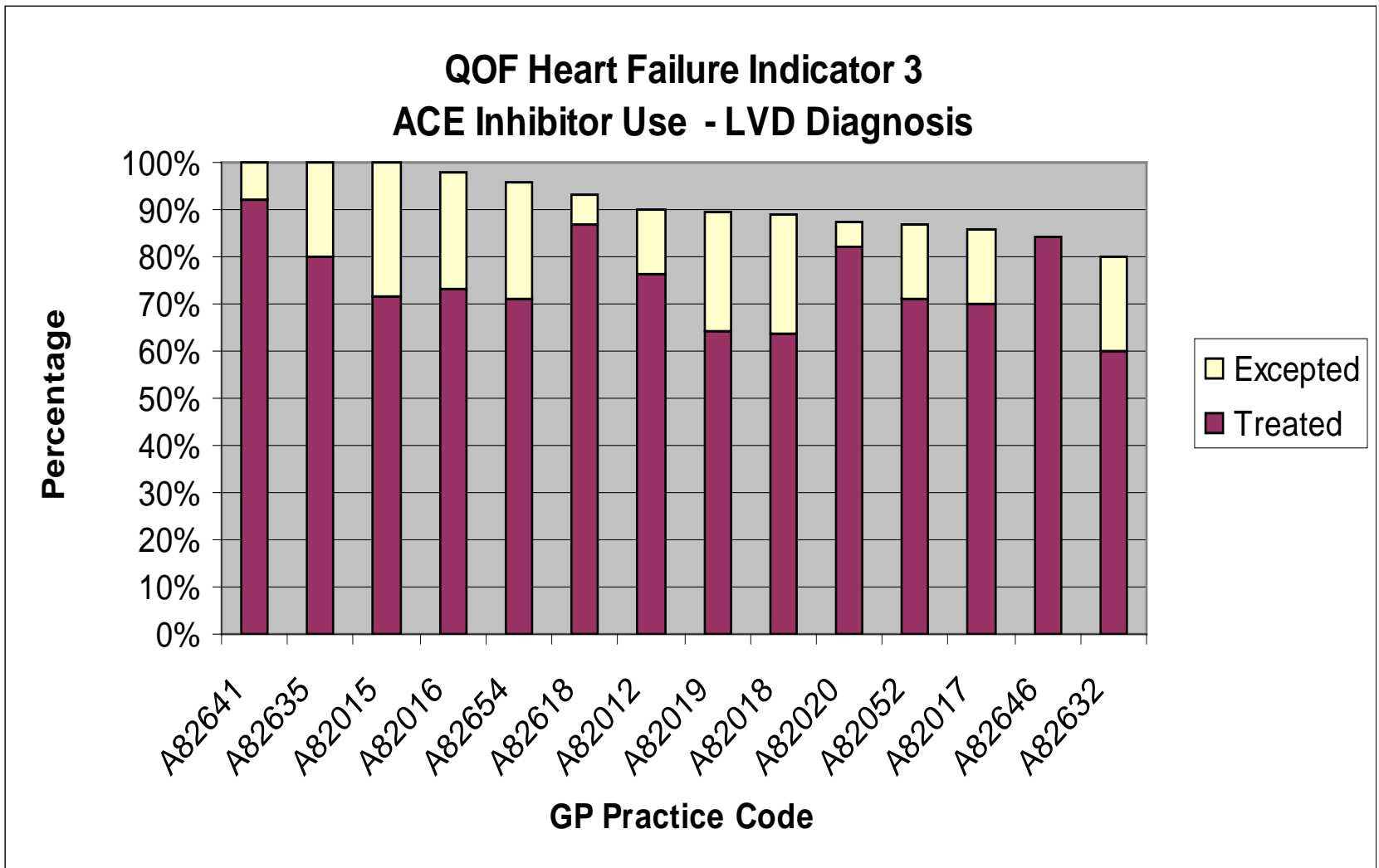
- Missed cases because not yet diagnosed
- Missed cases because not on register
- Missed cases because not identified LVD
- Missed cases because of exception reporting
- Cases still not treated effectively because of inadequate dosing
- Practice comparisons

Prevalence by Practice

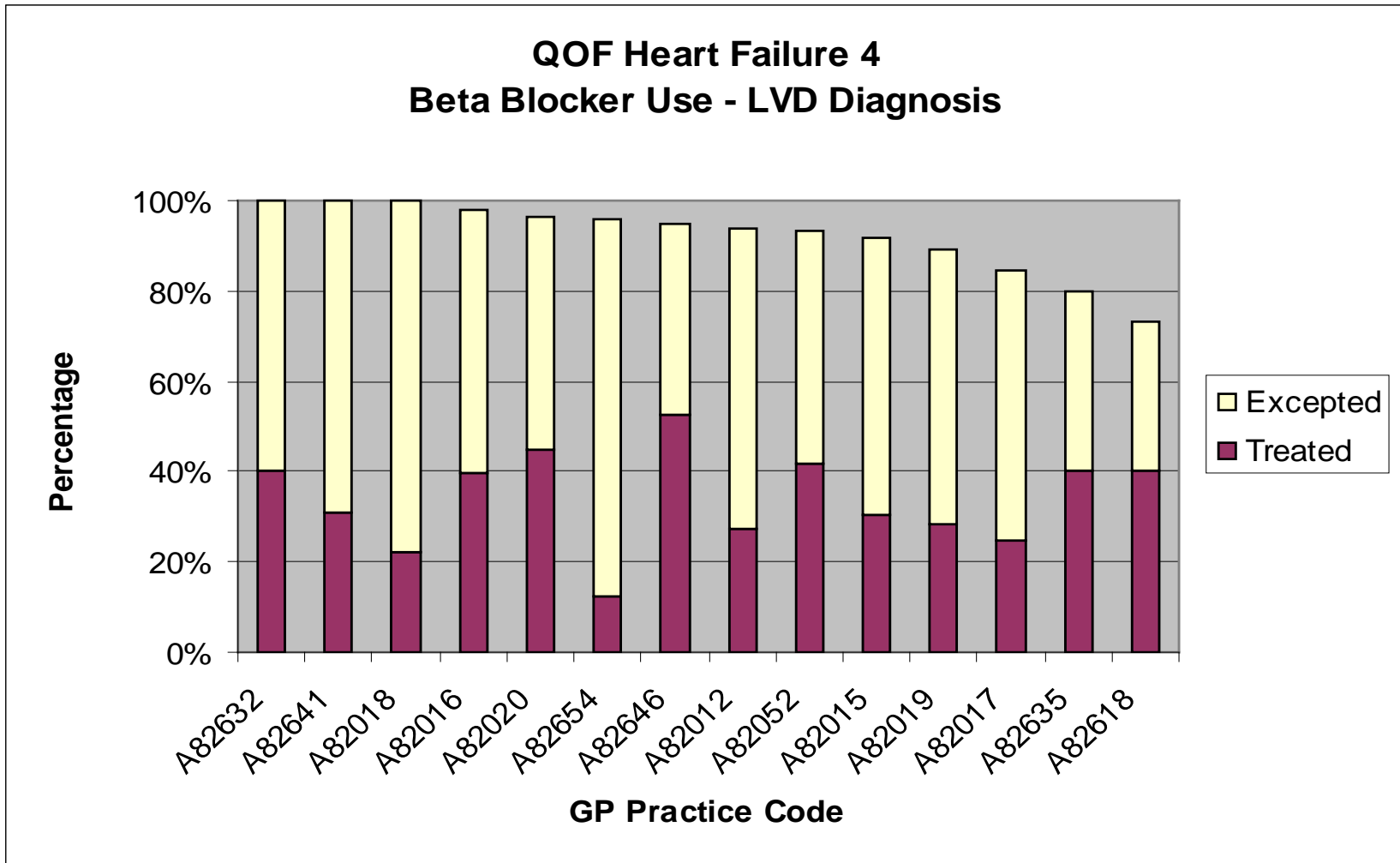
Heart Failure Disease Register by Practice 2009/10



ACE use – LVD register

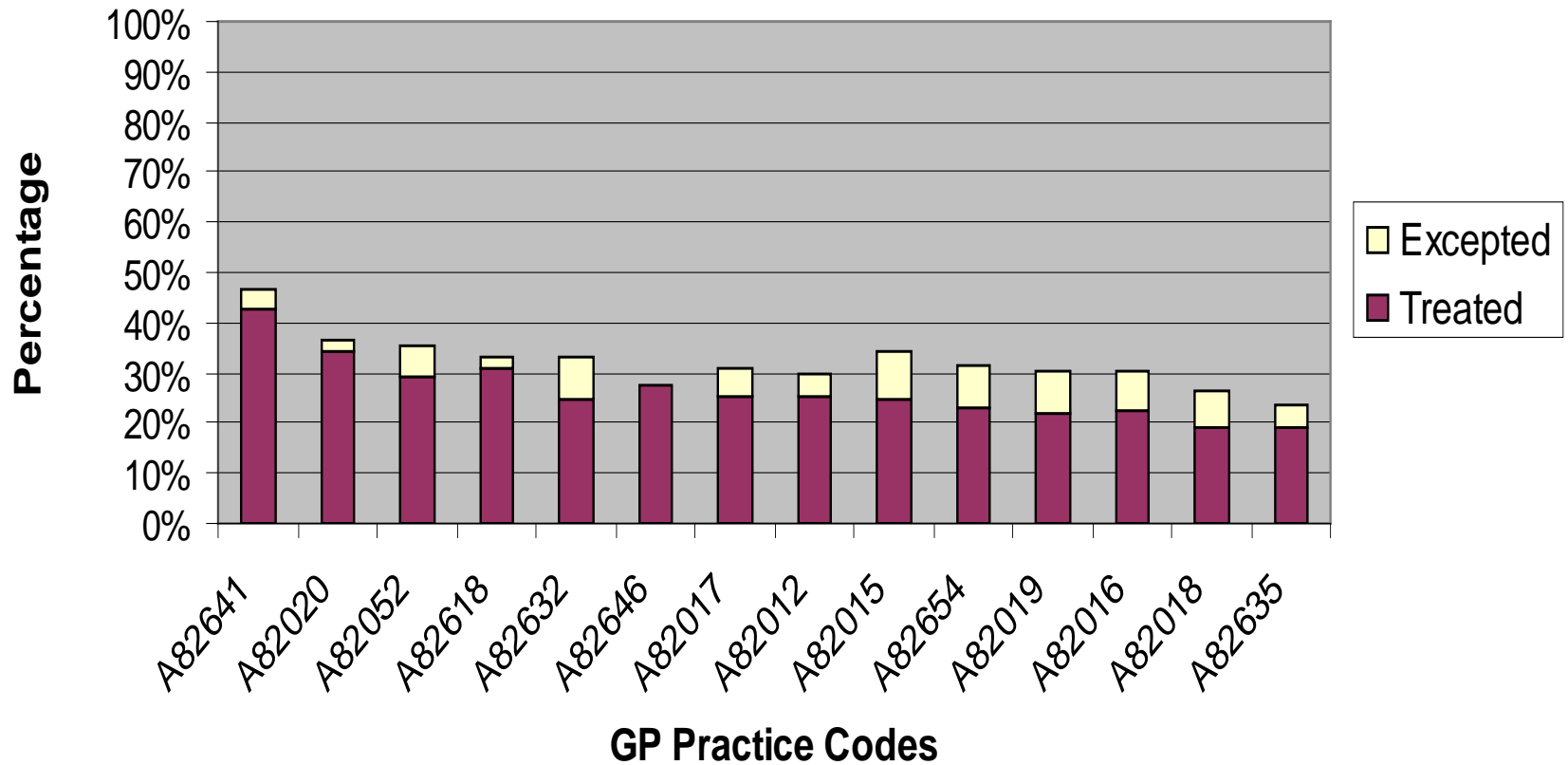


Beta-blocker use – LVD register

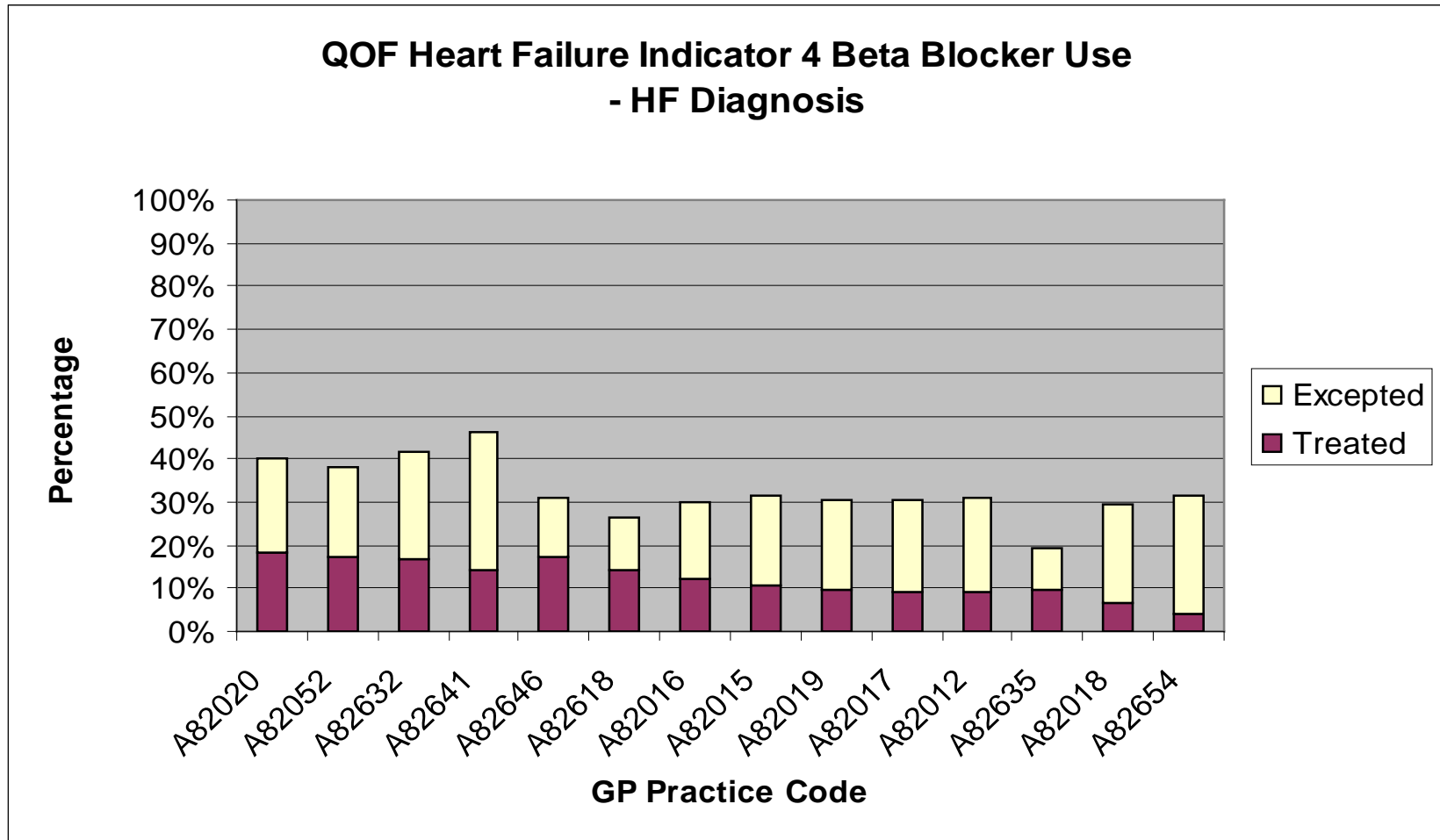


ACE use - HF register

QOF Heart Failure Indicator 3
ACE Inhibitor Use - HF Diagnosis



Beta-blocker use - HF register



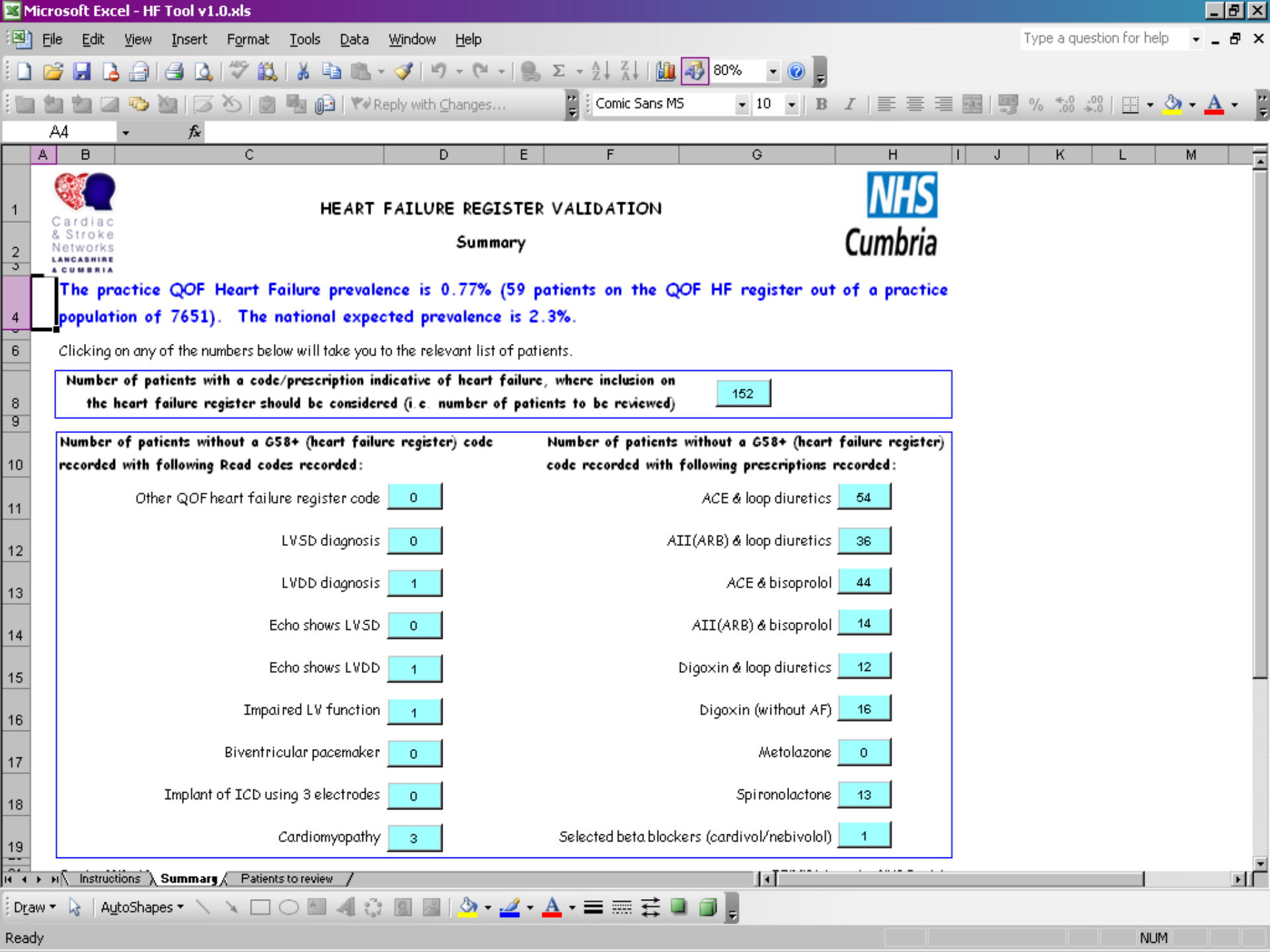
- But – there may be patients receiving BB who are not coded for LVD (not being seen by QOF)



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Process

- Pilot project initiated East Lancs and BwD
 - Acknowledgments to Angela Graves, Cath Richardson and Paula Black
- Network, PCT & PRIMIS (Acknowledgments to Carol McTurk) have constructed searches likely to identify missed patients
 - Code searches (eg. echo codes, LVSD codes etc)
 - Drug searches (ACE + Bisop, ACE + loop)
- Queries and tool now ready – sent out to areas across the network
- **Resources developed**
- Now practice engagement, register validation, assess changes in prevalence





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Practical Examples

- Carlisle practice
 - Practice Population 13,141
 - Numbers to review 302
 - No. on HF register 137 increased to 172
 - Prevalence 1.04% increased to 1.31%
- Rosebank practice
 - Practice population 10,250
 - Numbers to review 150
 - No on HF register 92 increased to 116
 - Prevalence 0.89 % increased to 1.1%
- Both have increase 26%
- Both took between 1-4 minutes



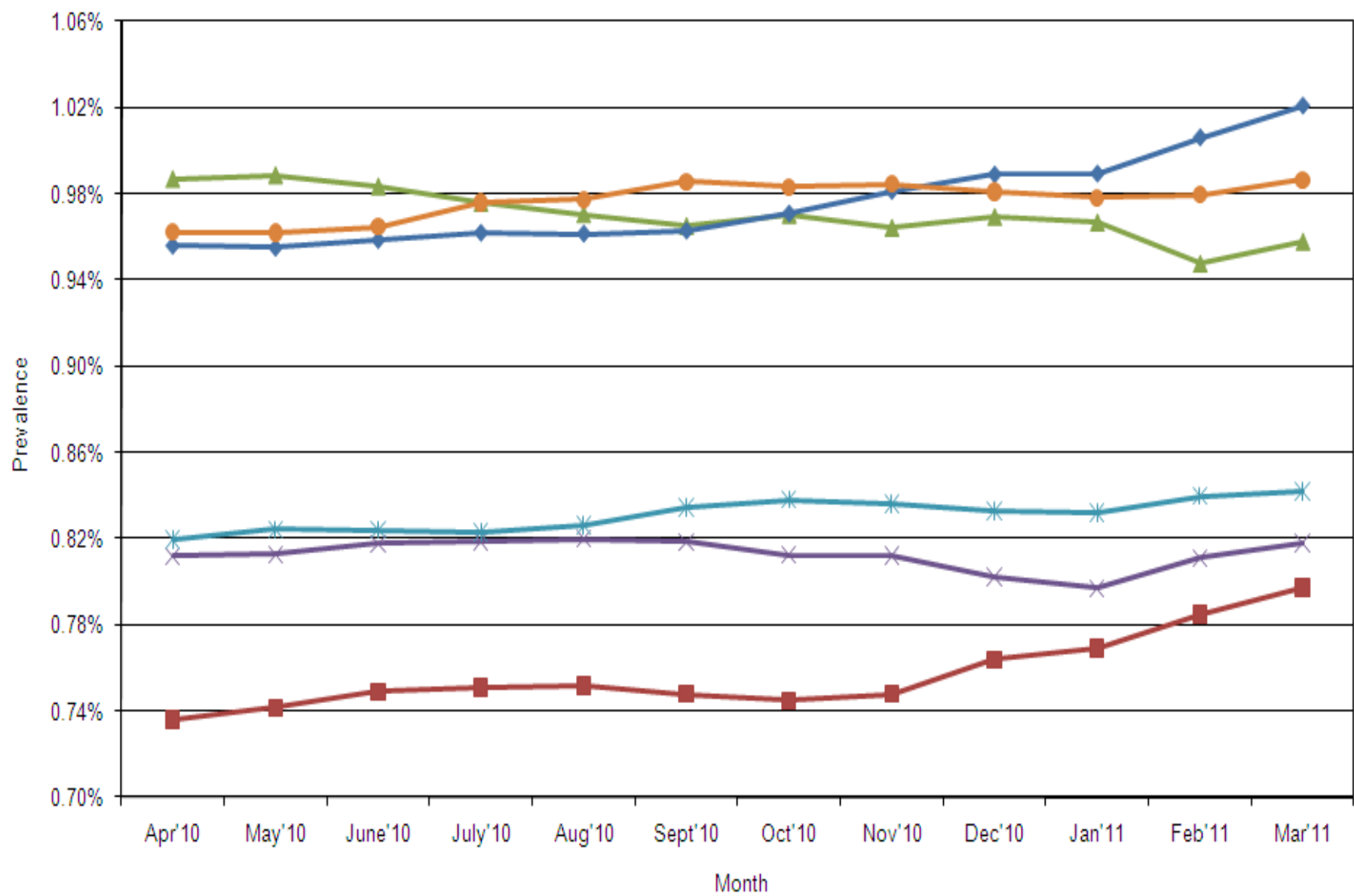
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Practical Example - outcome

- Heart Failure 172
- LVD 123
(lost cases due to lack of documentation/echo)
- LVD eligible for Rx 113
- LVD on ACE/ARB 92
- LVD, on ACE/ARB eligible for B-B 63
(lost cases mostly “unlicensed B-B)
- LVD, on ACE & B-B **45**
- **Right dose??**

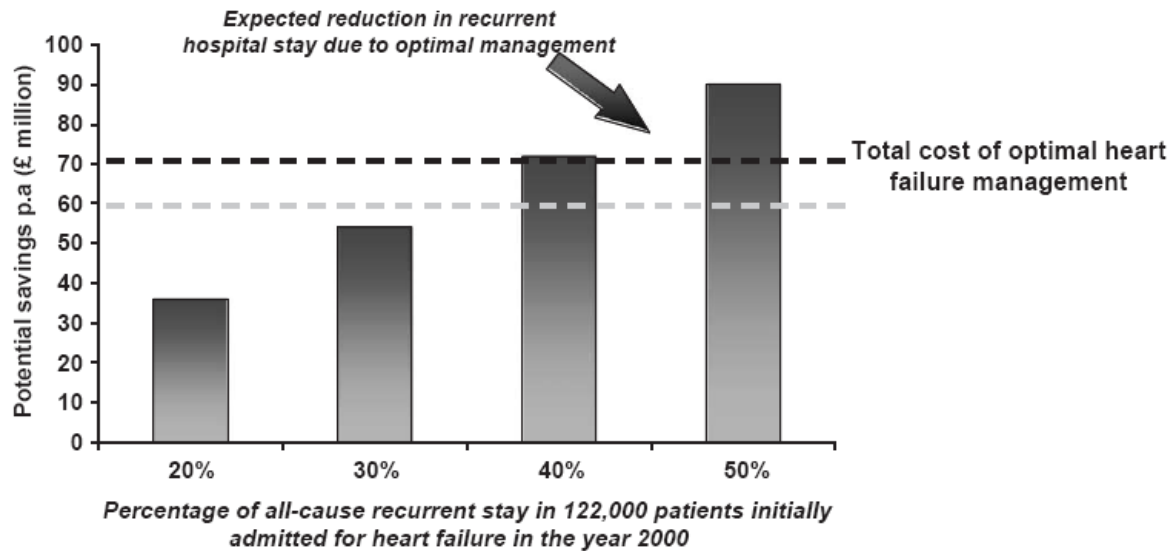
Cumbria & Lancashire QOF Heart Failure Prevalence - April 2010 to March 2011

■ Blackburn with Darwen
 ▲ Blackpool
 ✕ Central Lancashire
 ◆ Cumbria
 ✱ East Lancashire
 ● North Lancashire



Financial Calculations

- THE STATEMENT OF FINANCIAL ENTITLEMENTS (AMENDMENT) DIRECTIONS 20105 (Appendix 6) - outlines the QOF payments are dependent on the prevalence for a given disease register
- Project pilot sites – adjusted list size results - typically increase HF register size by up to 25%, thereby increasing the payment per point to 25% above the national mean to £158.46
- The average practice will then earn if they achieve full points:
 - +10 points for patients with heart failure (first two indicators) = £1,584.60
 - +19 points for patients with heart failure due to Left Ventricular Dysfunction (LVD) appropriately managed with ACE and Beta-Blockers, (second two2 indicators) = £3,010.74
 - Total = £4,595.34
- Therefore an average practice could potentially earn an additional £919.01 by adding an extra 10 patients to their register. Based on an average practice achieving full points for the HF indicators therefore each new patient is worth £94.19



PCT	Additional increase Cost QOF	Savings 30 % re-admission rates from strategy	Outcome (savings)
Blackburn with Darwen	£21,996	£59,500	£37,504
Blackpool	£22,308	£80,500	£58,192
Central Lancs	£70,513	£234,500	£163,987
Cumbria	£77,377	£220,500	£143,123
East Lancashire	£60,061	£178,500	£118,439
North Lancashire	£51,325	£140,000	£88,675
Total			£698,595



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Lessons Learnt

1. Clinical Code searches give much better “return” – 50 %
2. Large numbers in Prescription Codes, so “return rate” low (10%), but numbers similar... these are real people, potentially missing right treatment
3. Find cases on HF register but not coded LVD
(by subtraction of those already identified as LVD from the HF register)
1. Dr rather than even *experienced* admin (1-4mins)
2. 4 key entries to be made:
 1. G58 adds them to register
 2. G581 adds “Left Ventricular Failure”
 3. 585f adds “Echo shows LV Systolic Dysfunction”
 4. 585g if shows “Echo shows LV Diastolic Dysfunction”



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Project aims

- Undertake register validation – finite number of hours
- Achieve enhanced QoF payment
 - Increase number on HF Register
 - Increase payment per patient (LVD),
 - Get paid for what you are already doing
- Secure effective follow-up processes
 - Resist exception reporting
 - Maximise doses
 - Improve people's quality of life and prognosis

Key Messages

- Has a financial AND clinical incentive
- First step validate register
- Second step right drugs, right dose (MM)
- Third step Coding and communication
- Specific clinical pitfalls
 - Raise threshold for exception reporting
 - “Non-licensed B-Blocker” automated exception

Practical aspects

- MIQUEST queries – essential
- Practice engagement and support
 - Outcome - Enhanced relationship and improvements
- Education – Clinical HF, coding (both GP's and reception staff)
- Continued challenge within secondary care
 - wider challenge with general medicine/COE
 - Echo (OAE)
 - HF specialist teams provide codes on all correspondence