GRASP-AF

Coming to a PCT near you.

ADAS

Anticoagulation dosing advisory service
Blackpool Teaching Hospitals Trust

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"Grasp-AF" and the implications on our Anticoagulation Service

- Why are we anticoagulating AF Patients
- What is GRASP-AF
- How is it run
- The Dashboard results
- The PCT gets in touch!.....
- ADAS prepares
- Impact
- Key Learns

Atrial Fibrillation is common

- AF is the most common heart arrhythmia, with a prevalence of approximately 1.4 -1.8% in Primary Care in the UK
- Estimated numbers affected by AF in England is 600,000
- Nearly one in four people at age 55 years will go on to develop AF (24% of men and 22% of women)

Stroke is a frequent complication of AF

- Stroke is the leading complication of AF
- Patients with AF have a five-fold higher stroke risk than those without AF
- Without preventive treatment, each year approximately 1 in 20 patients (5%) with AF will have a stroke
- It is estimated that 15% of all strokes are caused by AF and that 12,500 strokes per year in England are directly attributable to AF
- Over 50% of AF-related stroke occurs in >75's

GRASP-AF TOOL

Developed by the West Yorkshire Cardiovascular Network, as part of the AF in Primary Care national project, now available nationally through NHS Improvement website

In simple terms it searches GP patient records to identify high risk AF patients and produces a dashboard report breaking down their anticoagulation Status.

Guidance on Risk Assessment & Stroke Prevention for Atrial Fibrillation

- Works on all GP software
- Set of MIQUEST queries on AF patients
- Calculates stroke risk using CHADS2
- CHADS2-VASC is now an option
- Highlights those with a score of 2 or more who would benefit from a medication review
- Results in spreadsheet/dashboard format

AF Case Finder

- Searches that can be run on all Primary Care clinical systems
- Identifies patients with possible/probable AF but who are missing a diagnostic code or have an unconfirmed diagnosis
- Improves accuracy of AF registers
- Pre-requisite for running the GRASP-AF tool

How does it work?

- Runs a set of searches on all AF patients registered in Primary Care
- Calculates stroke risk using CHADS2 (or CHA_2DS_2-VASc since 2011)
- Highlights those with a CHADS2 score of 2 or more who would benefit from anticoagulation
- Results in spread sheet/dashboard format

$CHADS_2$ score*

Congestive heart failure	1
History of hypertension	1
Age > 75	1
Diabetes	1
Stroke / TIA	2

Warfarin indicated when $CHADS_2$ score ≥ 2

* The $CHADS_2$ scores were developed in a study published in The Journal of the American Medical Association in 2001

CHA_2DS_2-VASC

CHA_2DS_2-VASC is an alternative scoring system, recently developed, which is useful for stratifying lower risk patients (CHADS2 of 1) through the consideration of the additional evidence based risk factors:

- Vascular Disease
- Age 65-74
- Sex Category (female)

Each of the above factors score 1 point and any patients aged >75 now score 2 points. This equates to a possible score of 9 points as opposed to a possible score of 6 points using $CHADS_2$

Audit of Atrial Fibrillation and CHADS2 Scores

Classic View

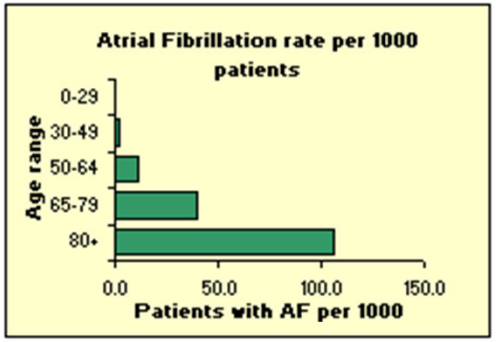
Practice:

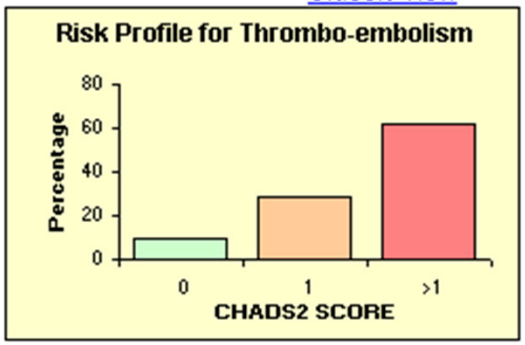
Reference Date for Audit 12/08/2008

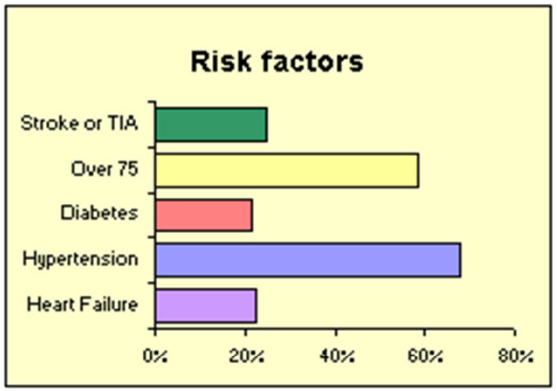
Total Practice Population 5342

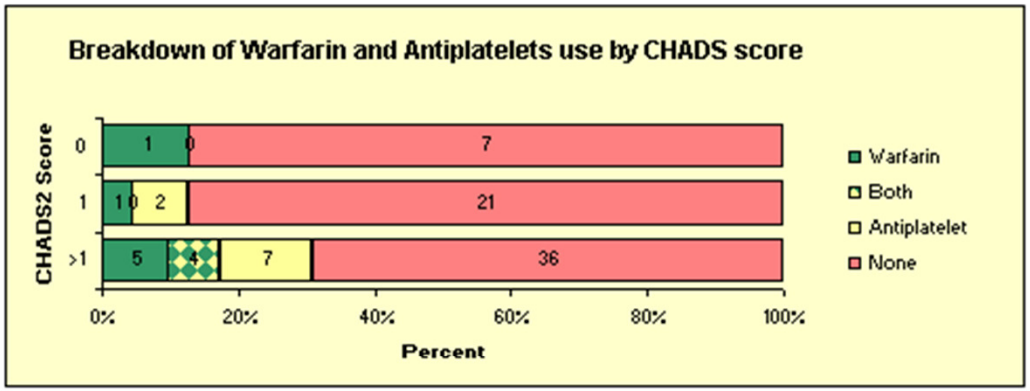
	Total	Percent
No. with Atrial Fibrillation	84	1.57
Percent of over 65s with AF		6.15

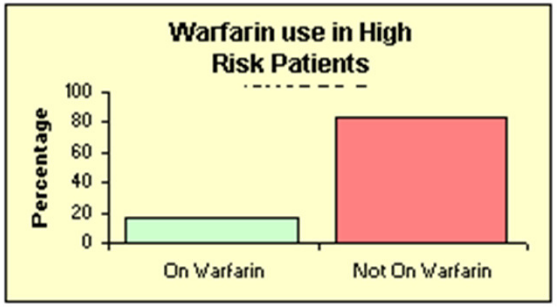
NB: Handling of Warfarin Exclusions







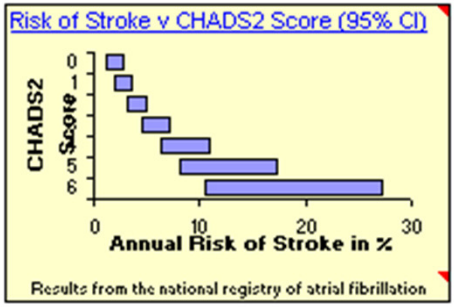




Strokes Expected Annually untreated

2.4

(95% CI 1.8 to 3.1)



ADVICE

REFERENCES

PODCAST

Warfarin Prescribing

- Anti coagulation in AF patients reduces risk of stroke by approximately 70%.
- The estimated total cost of maintaining one patient on warfarin for one year, including monitoring is £242
- The cost per stroke due to AF is estimated to be £11,900 in the first year after stroke occurrence
- YET only approx. half of those diagnosed with AF, who would benefit from warfarin, are receiving it.
- So…are we to presume our clinics are only half full??

So the PCT's gets in touch.

- Well not quite…
- ADAS just happen to have requested a costings review meeting
- Whilst discussing per test costing we are informed that our numbers may well increase!
- We learn about GRASP and a figure of 600 extra patients

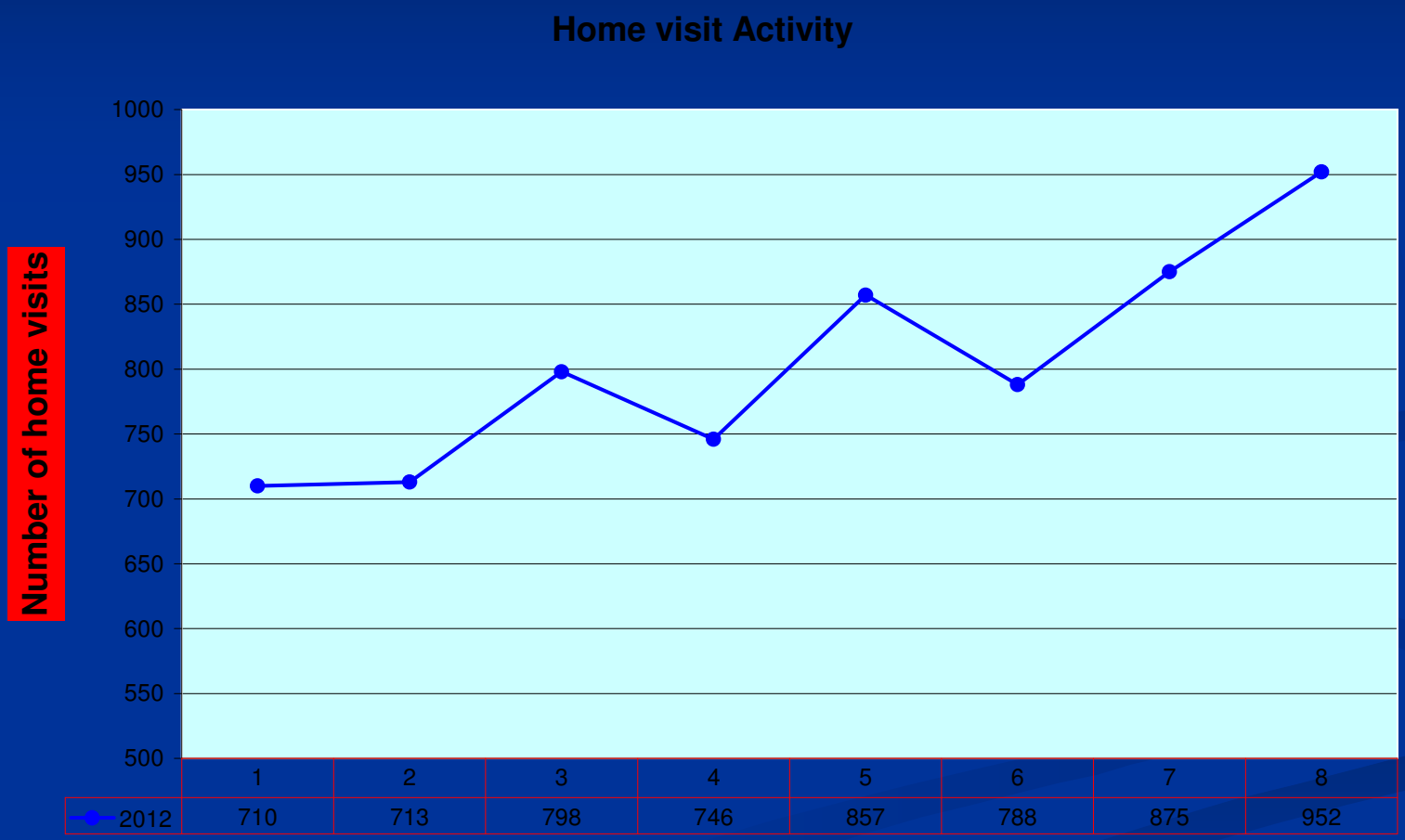
ADAS prepares!

- We needed some realistic projections
- Funding agreed to better suit a growing service
- Staff proposals agreed and activity ceilings set….without a scrap!
- Clinics redesigned to accommodate increase, however new PFI builds did help.
- Shiny new Clio's ordered
- A new Service Specification drawn up for all GP surgeries. VITk policy for domiciliary service re-visited.
- Primary Care referral aligned with Secondary care

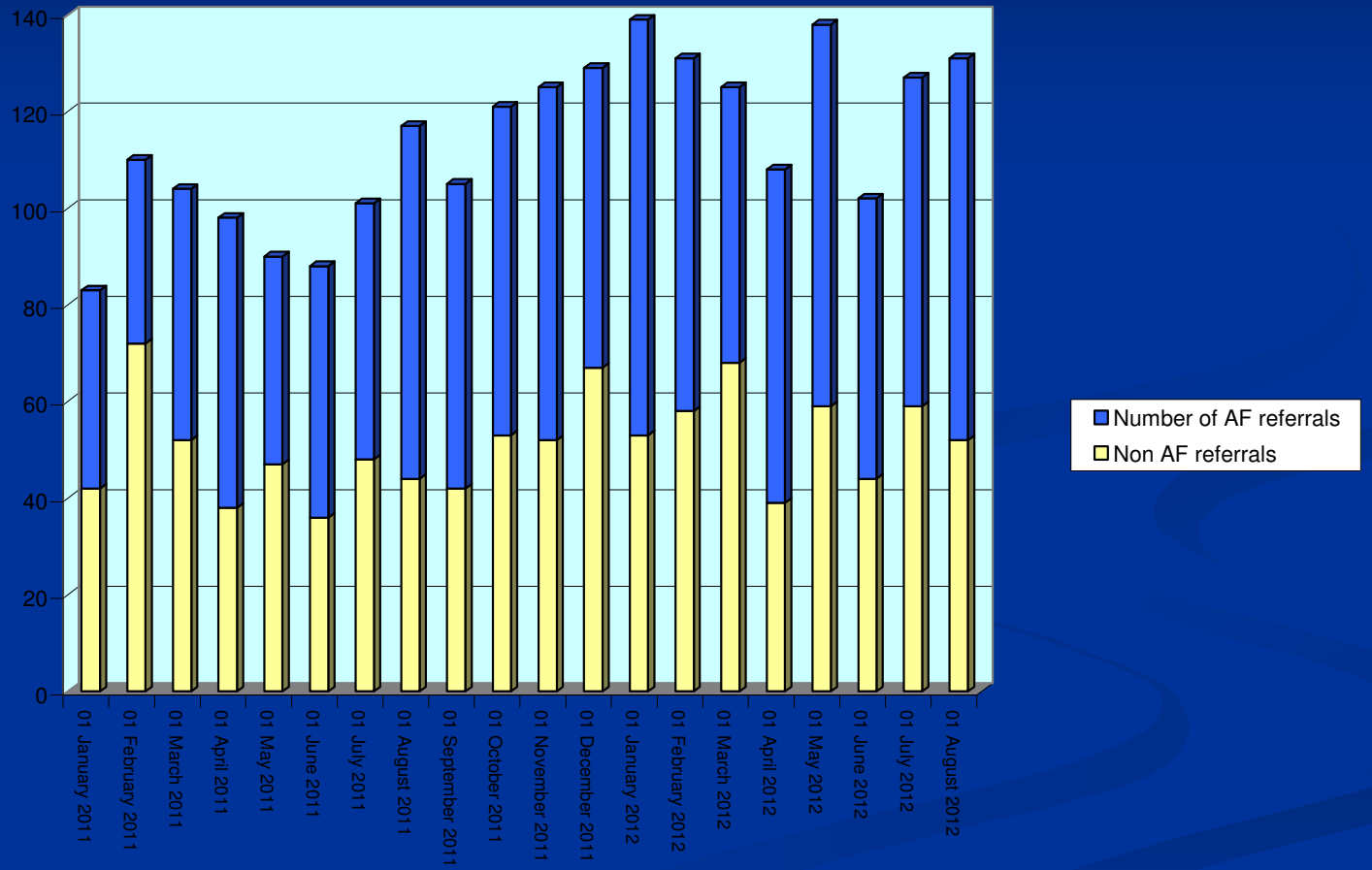
Impact on service

ADAS ACTIVITY

HOME VISITS


Home visit Activity
Number of home visits
1000
950
900
850
800
750
700
650
600
550
500
1
2
3
4
5
6
7
8
2012
710
713
798
746
857
788
875
952

AF REFERALS


140
120
100
80
60
40
20
0
01 January 2011
01 February 2011
01 March 2011
01 April 2011
01 May 2011
01 June 2011
01 July 2011
01 August 2011
01 September 2011
01 October 2011
01 November 2011
01 December 2011
01 January 2012
01 February 2012
01 March 2012
01 April 2012
01 May 2012
01 June 2012
01 July 2012
01 August 2012
Number of AF referrals
Non AF referrals

Impact on service

- Benchmarking!
- We noticed a 2% drop in %TIR!
- 5% increase in INR's below range
- We weren't bridging our AF initiations.
- We do now! and latest Benchmarking back to where we were.

Key learns

- Be aware!
- Be proactive, know your PCT
- Set ceilings….and stick to them.
- Referrals. Most will come from primary Care
- Service Spec.
- Watch Your benchmarking

Spiky v string clots

- Platelet–rich spiky clots form in response to plaque rupture or a foreign body (stent)

  =Antiplatelet therapy (Aspirin)

- Fibrin–rich string clots form as a result of blood stasis (Atrial appendage)

  =Anticoagulant therapy (Warfarin)

Warfarin lowers levels Vit K to prevent fibrin string forming

There are new oral anticoagulants that act on different parts of the clotting cascade to prevent thrombus forming

Warfarin Prescribing in >75's

Common Concerns

- Bleeding risk
- Falls
- Compliance
- Forgetfulness/Dementia
- Monitoring
- Polypharmacy
- Patients don't like it……..

Absolute C/I to Warfarin

- H/O inter-cranial haemorrhage
- Major non-traumatic haemorrhage in last 5yrs
- Oesophageal varices
- Previous hypersensitivity/adverse reaction
- Advanced malignancy/terminal illness
- BP180/110 (reconsider when controlled)
- Pregnancy

Relative C/I to Warfarin

- H/O GI haemorrhage
- H/O proven peptic ulcer
- Unexplained anaemia
- Clotting disorders
- Combined aspirin and clopidogrel therapy
- Alcohol abuse
- Impaired cognitive function/psychiatric problems
- Investigated risk of falls
- Renal/hepatic impairment
- Drug interaction

New Grasp- AF

- Ability to swap between $CHADS_2$ and CHA_2DS_2VASc
- Includes new oral anticoagulants

HAS-BLED score- Bleeding risk of oral anticoagulation in AF

Hypertension (Systolic ≥ 160mmHg)	1
Abnormal renal function	1
Abnormal liver function	1
Age ≥ 65 years	1
Stroke in past	1
Bleeding	1
Labile INRs	1
Taking other drugs as well	1
Alcohol intake at same time	1

A score of 3 or more indicates increased one year bleed risk on anticoagulation sufficient to justify caution or more regular review.

Dabigatran

- Direct Thrombin Inhibitor
- Twice daily dose
- 110mg safer but 150mg more effective (than warfarin)
- >80 yrs and low body weight – 110mg BD
- <80 yrs 150mg BD
- No antidote

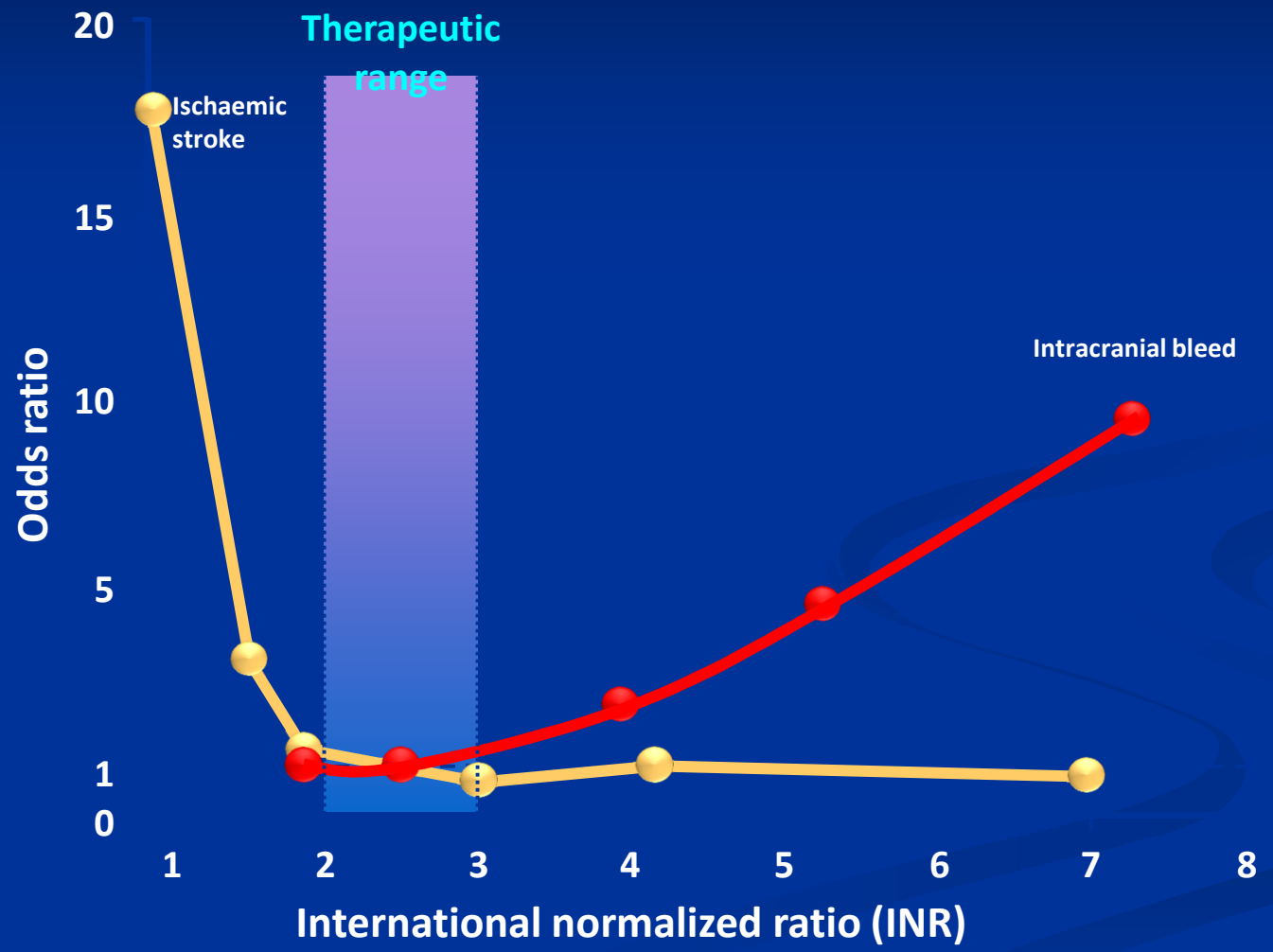
Rivaroxaban

- Factor Xa Inhibitor
- Once daily dose (20mg) all ages
- As effective as warfarin
- No antidote

NOACs – things to remember

- C/I similar to Warfarin
- Still risk of bleeding
- Recommended to patients with TTR <65%
- Review patients regularly (3/12)
- Monitor renal function (Dabigatran)
- Still an anticoagulant!

Current Treatments



ACC/AHA/ESC guidelines: Fuster V *et al. Circulation* 2006;114:e257–e354.