



Clinical Audit of Warfarin Clinic the 4th Practice

Mallow Primary Healthcare Centre, 2011-2012

Stephanie Cronin, Elaine Mulcahy, Dr David Molony, Curtis Irvine

Introduction

- Warfarin is a commonly prescribed drug with approximately 800,000 prescriptions annually in Ireland for the treatment of atrial fibrillation, pulmonary embolism, deep vein thrombosis and post-cardiac valve replacement.
- The majority of patients taking Warfarin are in the older age group for the management of Atrial Fibrillation.
- The decision to start someone on Warfarin is based on using the CHADS 2 VASC Score which calculates the risk of stroke occurring.
- Most Warfarin clinics do not monitor their overall clinic management and in the main rely on individual assessments to guide control.

Methods

- Decision to merge clinics for one system.
- Incorporate British Haematological Guidelines.
- Develop a 'near testing' model in keeping within the community.
- Use Laboratory quality machine.
- Use CompleteGP software linked directly to machines.
- Calculator built for calculation of Time in Therapeutic Range (TTR) using Rosendaal Method according to British Committee for Standards in Haematology.
- CompleteGP incorporated University of Michigan logarithms and calibrated against the UK Raid System.

Conclusion

- All warfarin testing moved to 4TH Practice.
- Patient education conducted with leaflets and personal explanation.
- 4 step process, lasting 3 mins.
- Near patient testing, capillary blood pipetted to warfarin machine, result automatically to CompleteGP and calculator with recommended result and label printed with each dose and next appointment date.
- Average TTR for whole clinic rose to 66.9%.
- Patient Satisfaction 70% gave 10/10.
- Single patient complaint is cost.

MPHC Dilemma 2010

- The 3 group practices joining MPHC had 3 clinics, 1 near patient testing and two taking samples and sending to laboratory with results later.
- Impossible to have level measuring system.
- Control monitored to different levels by different Computer systems.
- Large resources in staff, time, transport, clinical management were focused on this.
- TTR was 61% accurately in one clinic and taken as standard.
- Clinics with samples to hospital had 13 steps before results.

Patient Demographics

Total patients enrolled (01/11/12)	264
Mean Age	71.8
Males / Females	61% / 39%
Average test/patient	19
Atrial Fibrillation	76%
Cardiac Valves	10%
DVT/PE –IHD,CVA,	14%

References

- Kelly et al. Stroke Associated with Atrial Fibrillation- Incidence and Early Outcomes in the North Dublin Population Stroke Study. Cerebrovasc Dis 2010;29:43-49
- Hart et al. Adjusted-dose warfarin versus aspirin for preventing stroke in patients with atrial fibrillation. Ann Intern med. 2007;147:590-2
- Baglin TP, Keeling DM, Watson HG; British Committee for Standards in Haematology. Guidelines on oral anticoagulation (warfarin): third edition—2005 update. Br J Haematol. 2006 Feb;132(3):277-85.
- Baglin TP, Cousins D, Keeling DM, Perry DJ, Watson HG. British Committee for Standards in Haematology and National Patient Safety Agency. Br J Haematol. 2007 Feb;136(4):681.
- Ansell J et al (2004). The pharmacology and management of the vitamin K antagonists: the Seventh ACCP Conference Antithrombotic and Thrombolytic Therapy. Chest 126(suppl),204S-233S.
- Oppenkowski TP, Murray ET, Sandhar H, Fitzmaurice DA. External quality assessment for warfarin dosing using computerised decision support software. J Clin Pathol. 2003;56:605-607

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New Warfarin Clinic

- All warfarin testing moved to 4TH Practice.
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- 4 step process, lasting 3 mins.
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Audit Figures

- 178 Patients enrolled 01/07/2011.
- AFIB= , Cardiac Valves= , PE/VT=
- Number of tests done
- Average test /patient =
- Mean age =
- Gender F= M=
- Average TTR for whole clinic rose to 66.9%.
- Patient Satisfaction 70% gave 10/10.
- Single complaint is cost