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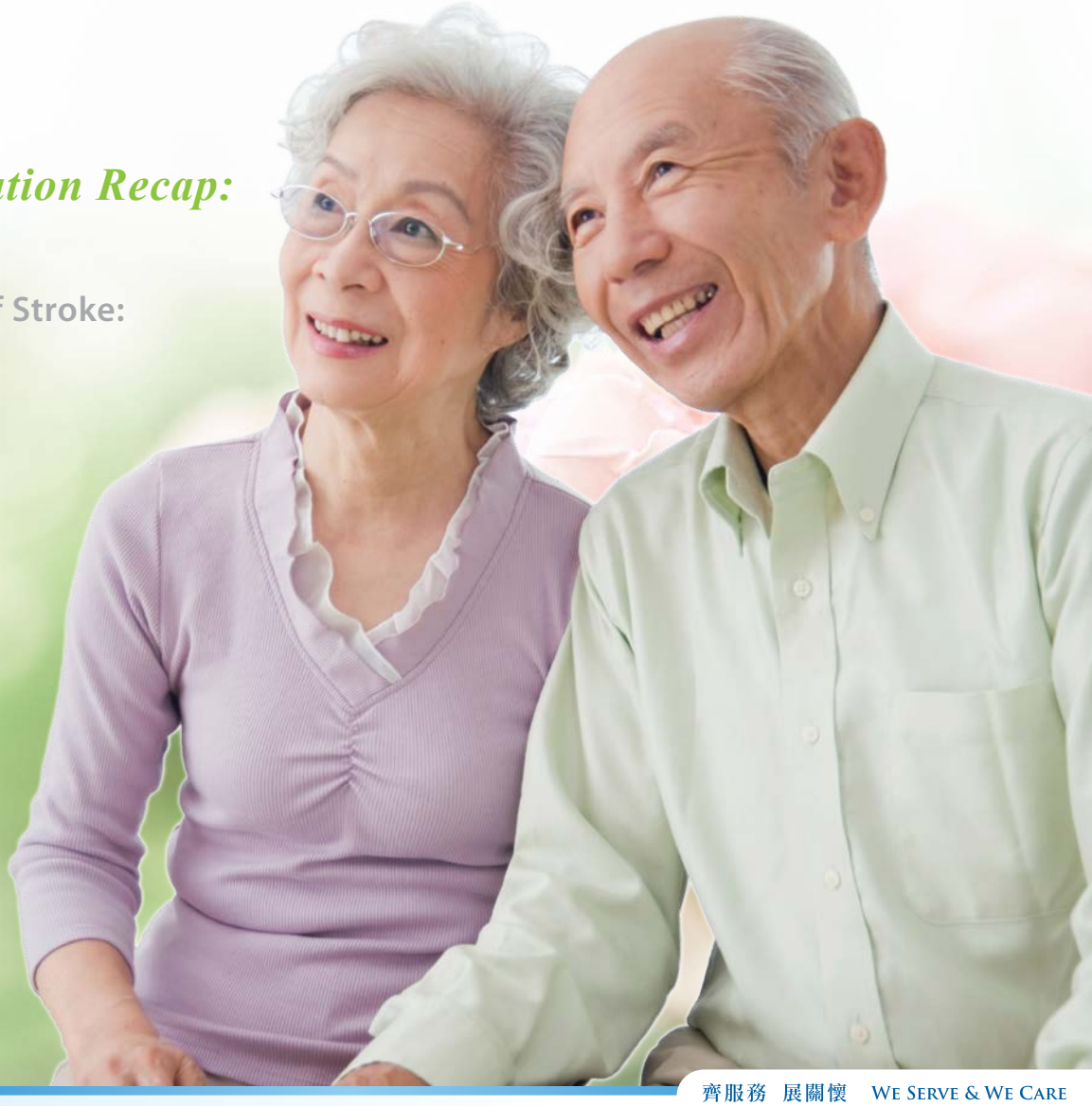
NewsLetter 院訊

When the Neurologists meet the Cardiologists –

Prevention of *Ischemic Stroke* and *Transient Ischemic Attack*

in Patients with Atrial Fibrillation



CME Presentation Recap:

- Audit Review
- Management of Stroke: Current Update

MEDICAL ARTICLE

Dr. Lo Chi Hung
Specialist in Neurology

When the Neurologists meet the Cardiologists – Prevention of *Ischemic Stroke* and *Transient Ischemic Attack* in Patients with Atrial Fibrillation

Atrial fibrillation (AF) is the most common arrhythmia encountered in clinical practice. The incidence of AF in developed countries is about 1.5 – 2%. The prevalence of AF increases with age, and is higher in men than in women. Common risk factors for developed AF include hypertension, ischemic heart disease, valvular heat disease and thyrotoxicosis. AF is associated with a five-fold risk of stroke in general and a three-fold incidence of congestive heart failure, and higher mortality.

Underutilization of oral anticoagulant for stroke prevention in patients with AF

Cardioembolic stroke with occlusion of large intracranial arteries due to AF usually ends up with large territory cerebral infarction and is usually devastating with high mortality or severe disability. Studie¬s have shown that the use of warfarin, a vitamin K antagonist (VKA), can significantly reduce the risk of stroke by about 65 – 70% in AF patients with international normalized ratio (INR) maintained between 2.0 – 3.0. However, the use of VKA is limited by numerous factors including narrow therapeutic range, the necessity of diet restriction, frequent blood taking for monitoring of therapeutic effect of VKA and increased risk of major hemorrhage (esp. in patients of advanced age). Previous studies also suggested that physicians probably underestimated the benefits of VKA while at the same time overestimating the risk of taking VKA, resulting in an overall low utilization rate of VKA for stroke prevention in AF patients. Therefore only a minority of AF patients who were indicated for taking VKA were actually put on VKA. Many of these patients were given aspirin instead of VKA for prevention of stroke or systemic embolism.

A Shift of Paradigm for Stroke Prevention in Patients with Atrial Fibrillation

The focused update of the European Society of Cardiology (ESC) Guidelines for the management of AF has been published in 2012[1]. The expert panel suggested an "opt-out" approach and advocated the use of CHA2DS2-VASc score[2] (Table 1) to identify "true low risk" patients aged <65 years with lone AF (i.e. CHA2DS2-VASc score = 0). These patients have an annual risk of stroke / transient ischemic attack (TIA) of about 0.8% only and the use of antithrombotic therapy in this group of patients will probably doing more harm than good. Therefore the new guidelines suggested no antithrombotic treatment for these "true low risk" patients. All the other AF patients with CHA2DS2-VASc score ≥ 1 should receive some form of oral anticoagulants (either VKA or novel oral anticoagulants) for preventing stroke / systemic embolism, unless contraindicated / declined by patients.

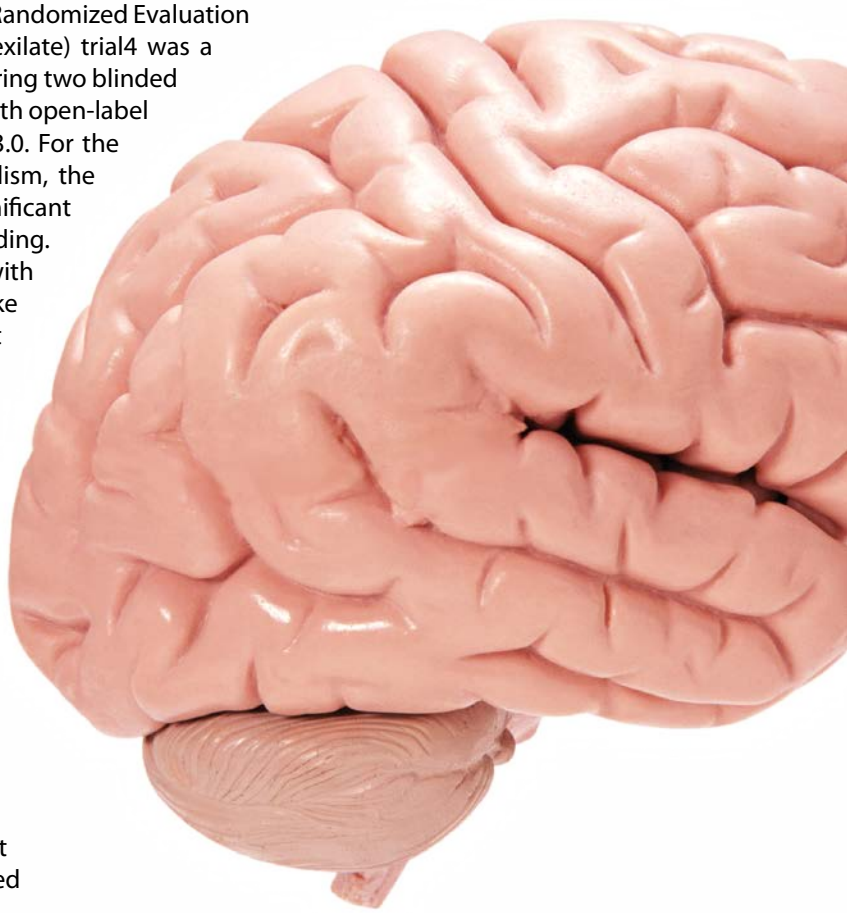
The guidelines also advocate a formal bleeding risk assessment for all patients with AF using the HAS-BLED score[3] (Table 2). Caution and regular review, together with efforts to correct the potentially reversible risk factors for bleeding should be exercised in patients with a HAS-BLED score ≥3. The HAS-BLED score per se should not be used to exclude patients from OAC therapy but allows physicians to make an informed assessment of bleeding risk (rather than a perceived risk or wide guess) and, importantly, remind physicians about the correctable risk factors for bleeding.

New-generation Oral Anticoagulants

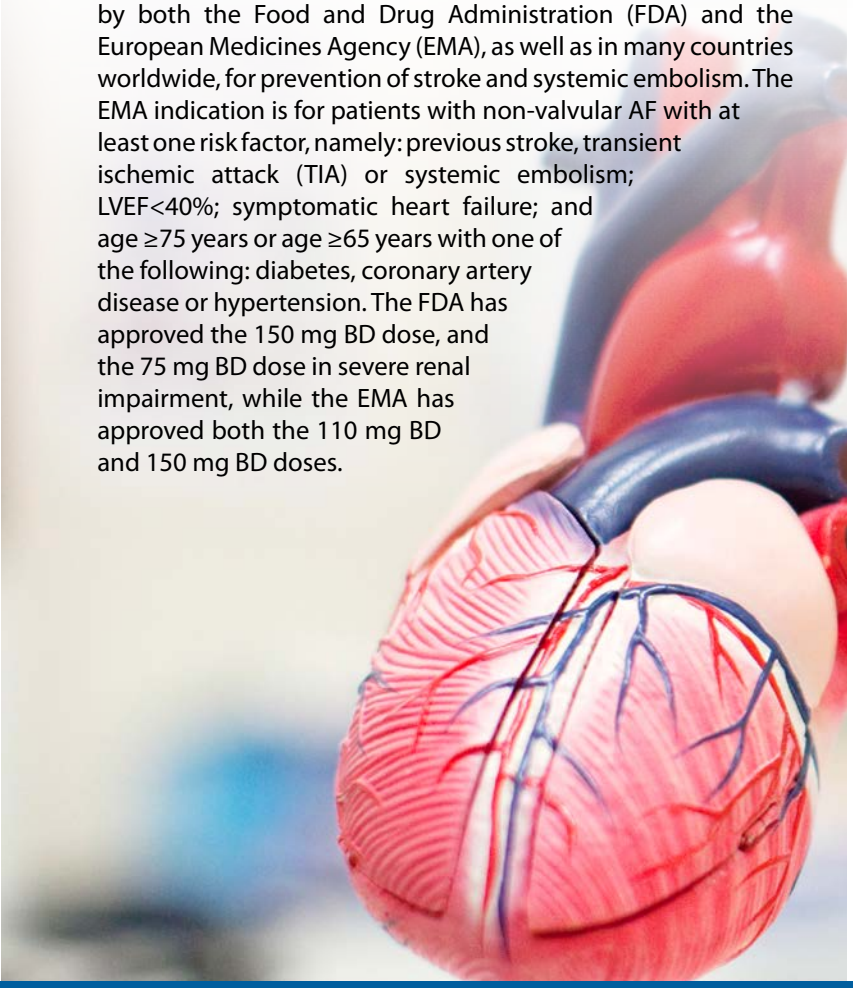
Because of the limitation of using VKA in clinical practice, pharmaceutical companies have developed several new OACs to substitute VKA. The new OACs for stroke prevention in AF can be divided into 2 classes from pharmacological point of view: the oral direct thrombin inhibitors (e.g. dabigatran) and oral direct factor Xa inhibitors (e.g. rivaroxaban, apixaban). In contrast to VKA, which block the formation of multiple active vitamin K-dependent coagulation factors (factors II, VII, IX, and X), these drugs block the activity of one single step towards the end of the whole coagulation cascade. In general, the new oral anticoagulants are at least as effective and safe as warfarin. Their advantages are predictable anticoagulant effects, low propensity for drug interactions, and lower rates of intracranial hemorrhage compared with warfarin.

Dabigatran Etexilate

Dabigatran is an oral direct thrombin inhibitor. The RE-LY (Randomized Evaluation of Long-term anticoagulant therapY with dabigatran etexilate) trial4 was a prospective, randomized, open-label, phase III trial comparing two blinded doses of dabigatran etexilate (110 mg BD or 150 mg BD) with open-label adjusted-dose warfarin, with target INR between 2.0 to 3.0. For the primary efficacy endpoint of stroke and systemic embolism, the higher-dose regimen was superior to warfarin, with no significant difference in the primary safety endpoint of major bleeding. The lower-dose regimen was non-inferior to warfarin, with about 20% fewer major bleeds. Rates of hemorrhagic stroke and ICH were lower with both doses of dabigatran, but gastrointestinal bleeding was significantly increased with higher-dose regimen. There was a non-significant increase (28%) in myocardial infarction (MI) with both dabigatran doses. There was a significant reduction in ischemic stroke, together with a borderline reduction in all-cause mortality with higher-dose regimen (P=0.051) and a significant reduction in vascular mortality (P=0.04). The rates of discontinuation were higher with higher-dose regimen (20.7%) and lower-dose regimen (21.2%), compared with 16.6% with warfarin at 2 years. A post-hoc analysis has reported a significant age interaction, whereby patients aged >75 years had rates of major bleeding similar to warfarin with lower-dose regimen, with a trend towards more bleeding with higher-dose regimen. However, ICH was lower with both doses of dabigatran. Previous VKA exposure did not influence the benefits of dabigatran at either dose, compared with warfarin.



Based on the results of RE-LY, dabigatran has been approved by both the Food and Drug Administration (FDA) and the European Medicines Agency (EMA), as well as in many countries worldwide, for prevention of stroke and systemic embolism. The EMA indication is for patients with non-valvular AF with at least one risk factor, namely: previous stroke, transient ischemic attack (TIA) or systemic embolism; LVEF<40%; symptomatic heart failure; and age ≥75 years or age ≥65 years with one of the following: diabetes, coronary artery disease or hypertension. The FDA has approved the 150 mg BD dose, and the 75 mg BD dose in severe renal impairment, while the EMA has approved both the 110 mg BD and 150 mg BD doses.



Rivaroxaban

The efficacy of rivaroxaban (an oral direct factor Xa inhibitor) has been demonstrated in ROCKET-AF trial5, which was a double-blind randomized 14 264 high-risk patients with AF. It was a head-to-head comparison between rivaroxaban 20 mg daily (15 mg daily for those with estimated creatinine clearance 30–49 mL/min) and adjusted dose of warfarin (INR 2.0 – 3.0). The population was at considerably higher risk for stroke than in other novel oral anticoagulant AF trials. Rivaroxaban was non-inferior to warfarin for the primary endpoint of stroke and systemic embolism, and the per-protocol on-treatment analysis achieved statistical superiority [relative risk reduction (RRR) 21%, P=0.015]. However, using the more conventional intention-to-treat analysis, rivaroxaban was not superior (P=0.12). There was no reduction in rates of mortality or ischemic stroke, but a significant reduction in hemorrhagic stroke and intracranial hemorrhage. The primary safety endpoint was the composite of major- and clinically relevant non-major bleeding, which was not significantly different between rivaroxaban and warfarin. Nevertheless, there was a significant reduction in fatal bleeding with rivaroxaban, as well as an increase in gastrointestinal bleeding and bleeding requiring transfusion. Premature discontinuation of treatment was more common with rivaroxaban (23.9%) than with warfarin (22.4%). Rivaroxaban has been approved for stroke prevention in non-valvular AF by both the FDA and the EMA, and in many countries worldwide.

Apixaban

Apixaban is another oral direct factor Xa inhibitor. Its efficacy for stroke prevention in AF patients has been demonstrated in ARISTOTLE trial, which was a randomized, double-blind, double dummy, phase III trial comparing Apixaban (5 mg BD with a dose adjustment to 2.5 mg BD in patients ≥80 years, weight ≤60kg or with a serum creatinine ≥ 133 mmol/L) with dose-adjusted warfarin (Target INR between 2.0 to 3.0) in 18 201 patients with non-valvular AF. There was a significant reduction in the primary efficacy outcome of stroke or systemic embolism by 21% with apixaban compared with warfarin, with a 31% reduction in major bleeding and a significant 11% reduction in all cause mortality (but not cardiovascular mortality). Rates of hemorrhagic stroke and intracranial hemorrhage (but not of ischemic stroke) were significantly lower in patients treated with apixaban than with warfarin. Gastrointestinal bleeding was similar between the treatment arms. Apixaban was better tolerated than warfarin, with slightly fewer early discontinuations (25.3% vs. 27.5%). So far apixaban has not yet gained regulatory approval from either the EMA or FDA.

Summary

To conclude, OACs was probably underutilized for stroke prevention in AF patients. Latest international guidelines recommended anticoagulation for ALL AF patients (either warfarin or new-generation OACs) for stroke prevention, unless for those who are at true low risk (lone AF patients with age <65 years), or those who are contraindicated or decline anticoagulation. The bleeding risk for taking OACs should be individualized. With the development of novel OACs, the utilization rate and compliance of OACs could probably be enhanced for stroke prevention in AF patients.

Table 1. CHA2DS2-VASc Score

CHA2DS2VASc Score	
Congestive heart failure/LV dysfunction	1
Hypertension	1
Age ≥75 years	2
Diabetes mellitus	1
Stroke, transient ischemic attack, or thromboembolism	2
Vascular disease (previous MI, PAD, or aortic plaque)	1
Age 65–74 years	1
Sex category (female sex)	1
Maximum score	9

Table 2. HAS-BLED Score

Letter	*Clinical Characteristic*	*Points Awarded*
H	Hypertension (SBP >160mmHg)	1
A	Abnormal renal / liver function (1 point each)	1 or 2
S	Previous stroke	1
B	Bleeding (History / predisposition)	1
L	Labile INRs (<60% of time in therapeutic range)	1
E	Elderly (Age >65)	1
D	Drugs (e.g. concurrent anti-platelet / NSAIDs) Alcohol use (1 point for each)	1 or 2

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Clinical Audit on Frozen Section

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Frozen Section Audit Result

Intraoperative frozen section (FS) consultation is perhaps the most challenging and high-risk area in the daily practice of a pathologist. An accurate intraoperative diagnosis helps to guide the surgeon in making optimal on-the-table treatment decisions. While useful, the success of frozen section consultation hinges on diverse confounding factors, including the pathologist's skill and experience, time constraint, limited tissue sampling and quality of histologic sections.

Our audit objective was to assess the quality of FS practice at St. Paul's Hospital. The FS diagnosis was compared with the final diagnosis, and the results were measured against key analytic indicators and compared with benchmark data. During a twelve-month period, there were 762 cases of FS requests. The most common indications were for diagnostic purposes, assessment of margins and to ensure adequacy of tissue. The most common body sites were breast and/or axillary sentinel lymph nodes (54%), followed by thyroid (16%) and ovary (7%), and with representation from diverse other organs.

When the FS diagnoses were compared with the final diagnoses, the result was as follows:

Agreement	90.7%
Major disagreement	2.8 %
Minor disagreement	3.8 %
Deferred diagnosis	2.9 %
False-positive cases	0 %

Major disagreement was defined as a significant diagnostic error resulting in major medical consequence, while minor disagreement encompasses minor, questionable errors and lack of major consequence.

The reasons leading to disagreements were analyzed in detail. The most common reason was under-diagnosis of malignancy and was mostly due to sampling error. Cancer was detected in deeper levels of the FS tissue block or in tissue subsequently sampled from other parts of the specimen. However, it should be emphasized that under-diagnosis also reflects caution exercised by pathologists in avoiding false-positive diagnosis of cancer which would have resulted in unjustified radical surgery. Pathologists should adhere to the golden dictum: first, do no harm. I hasten to point out that there were no false-positive cases in this series. The major disagreement cases were mostly false-negative results, and the consequence was the necessity for additional followup surgery.

When compared with international benchmark data, our results including those for sentinel lymph nodes evaluation matched the benchmark criteria.

In summary, intraoperative FS service at SPH attained a reasonably accurate rate, comparable with peer benchmark results. There is however no room for complacency but need for continuous improvement in addressing the shortcomings detected in this audit. Regular FS audit serves to monitor the competence of the pathologist, provide quality assurance and enhance patient safety.

Audit on Caesarean Section under Spinal Anaesthesia

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Introduction

Since the advent of prepacked local anaesthetics and disposable spinal needles in various design and gauges, much of the worries facing the anaesthesiologists, viz contaminated local anaesthetics and poorly sterilized reusable spinal needles have been removed.

Over the last decade or so we saw a resurgence in the use of spinal anaesthesia(SA) particularly in the elderly where it offers distinct advantages.

For caesarean section(CS) it is the anaesthesia of choice worldwide.

Advantages of SA for CS include: a better Apgar score; avoiding risks associated with GA viz difficult airway management, spike in blood pressure during intubation, acid aspiration, and awareness; excellent postoperative pain relief ; better parental bonding and more cost effectiveness.

During the period under review total deliveries numbered 1091. 703(64.4%) were by CS. Of these 499(71%) were under SA.

With such a hugh workload being attended to by a large number of visiting anaesthesiologists of various training background, both locally and overseas our aim is to assess any variations in techniques/protocols, evaluate outcome and identify complications.

Results and analysis.

All patients were young (obviously), mean age being 32.4y, not overweight (mean 69.5kg) and healthy, with only 29 or 5.9% having coexisting medical conditions. CS were mostly scheduled. Only 29 (3.5%) were not fasted.

Most adhered to strict aseptic techniques. Gowning(70.2%), draping(98.4%), gloves(84.6%).

95.1% of anaesthesiologists adopted the left lateral position, effective in relieving caval compression.

95% used pencil point spinal needles(Whitacre 27g 46.7%, Whitacre 25g 48.3%). These are well documented to reduce the incidence of post dural pucture headache (PDPH) to less than 0.5% in one series , 27g being more so but with a slight increase in incidence of unsuccessful block.

98.4% used a traditional dose(9-12mg) of hyperbaric bupivacaine.

46.5% added an adjuvant , mainly opoids (97.4%).

Median total volume was 2.6mls.

Nearly all (99.2%) were able to accomplished SA within 15mins, 89.25% on the first attempt. There were 3 failures(0.65%).

486(98.6%) of blocks were found to be satisfactory.

There were 3 partial blocks and 4 failures that required conversion to GA.

Intraoperative hypotension is the single most common complication. Left unattended, incidence is as high as 70% in one study. Significant feotal acidosis occur if maternal hypotension remains untreated for over 5 mins.

While all agreed that hypotension need to be treated, when and how to is at best contentious.

This is reflected in our survey. Fluid replacement, either preloaded or as required with either colloids (51.9%) and / or crystalloids (31.4%) and/or vasopressors (ephedrine18.5%, phenylephrine 51.5%) appeared to be the norm.

Complications: most studies reported pdph as 1 in200/450. In our survey we reported no incidence. Other complications such as haematomas, site infection/abscess, low back pain, lower limb weakness/numbness are rare (one in tens of thousands). We reported no such complications.

Conclusions:

In our survey all our visiting specialists are technically proficient and follow international guidelines and recommendations. All have good outcome with zero complication

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Audit on Colonoscopy Performance in St Paul's Hospital

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Screening for colorectal cancer (CRC) with colonoscopy has been shown to reduce the incidence and mortality of CRC. Detection and removal of the adenomatous polyp (the precursor lesion) is the essential step to prevent CRC development. The success is relied on the performance of high quality colonoscopy. Therefore, our endoscopy centre conducted an audit on the performance of colonoscopy in St Paul's hospital. Currently, there are approximately 6,000 colonoscopies done in our hospital each year. We carried out a prospective audit in August 2011 to October 2011, with the aim to evaluate the colonoscopy practice in St Paul's Hospital. The objectives included: (1) to estimate and evaluate the complication rate, both procedure-related or related to sedation/MAC; (2) to assess whether bowel preparation and colonoscopy procedure meet the standard; (3) to analyze and recommend improvement in colonoscopy procedure. In this audit, we elected the British National Health Service (NHS) 2011 guideline as our benchmark for comparison. In this guideline, high quality colonoscopy was defined as: (1) good or satisfactory bowel preparation > 90%; (2) caecal intubation rate > 90%; (3) mean withdrawal time > 6 minutes. Concerning the complications, the perforation rate should be < 1:1000 colonoscopies and the post-polypectomy bleeding rate < 1:100 colonoscopies. We recruited 1000 cases for analysis. All the essential data were collected prospectively in a single-page data collection sheet. In this audit activity, we found that most colonoscopies were performed by surgeon and were for diagnostic purposes. Intravenous sedation was the preferred method for sedation. Most endoscopists would like to use oral fleet as bowel cleansing agent, followed by polyethylene glycol and Picolax. As compared with the quality indicators, colonoscopy performed in St Paul's hospital met the NHS standard (good or satisfactory bowel preparation 91.1 %; caecal intubation rate 98.5%; mean withdrawal time 12.1 minutes). There was no record of colonic perforation nor post polypectomy bleeding in the audit period. Despite these satisfactory results, we could not exclude the possibility of not detecting the rare complications in such a short period of time for a generally safe procedure. We could also miss any delayed complications that was not immediately found. Therefore, a continuous surveillance and audit over a longer period may be useful to detect complications and recommend improvement. The effort by all endoscopists and staffs of endoscopy centre is essential to ensure high quality colonoscopy is performed in our hospital.

Surveillance for Percutaneous Coronary Intervention (PCI) and Its Associated Complications

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Percutaneous Coronary Intervention was first developed in 1977 by Andreas Gruentzig. With advance in the instrument and technique, it is now the mainstay treatment mortality for Revascularization of coronary artery disease. In our hospital, the annual PCI volume is around 400

The purpose of this audit is (1) To investigate PCI associated complication(s) in our hospital as reference to international standard; (2) To investigate the predisposing factor(s) of PCI associated complication(s); (3)To identify measure(s) of minimizing PCI associated complications.

Prospective audit was performed from the period between Jul 2011 and Mar 2012. The cardiologist in charge of the procedure was asked to fill the audit form with following data included: Demographic Data (Sex, Age), previous Medical History (DM, previous MI, CVD etc.), PCI Indications, current Clinical Status, details of the procedures and In-hospital Complications

During this period, 302 PCI were performed, and 255 audit forms returned, with the compliance rate 84.4%.

Patient characteristics:

Mean age (range): 62.6 (38-94)
Male to female ratio: 3:1

Risk Factors	No. of cases (%)
DM	55 (21.6%)
Previous PCI	45 (17.6%)
Previous MI	17 (6.7%)
Renal Impairment	12 (4.7%)
Cerebrovascular Disease	4 (1.6%)
Peripheral Vascular Disease	4 (1.6%)
Previous CABG	3 (1.2%)
Overall (≥1 risk factor)	104 (40.8%)

RPCI Indications	
Urgency	
Elective	217 (85.1%)
Acute Coronary Syndrome	36 (14.1%)
Rescue / Salvage PCI	2 (0.8%)
No. of arteries >50& lesions	
1	127 (49.8%)
2 (no LM involved)	81 (31.8%)
2 (LM involved)	17 (6.7%)
3 (no LM involved)	24 (9.4%)
3 (LM+RCA)	6 (2.4%)

Clinical Status	
Clinical Heart Failure (within last 3 months)	
None	243 (95.3%)
Class I or II	7 (2.7%)
Class III or IV (include APO)	5 (2.0%)
Ejection Fraction	
>55%	203 (79.6%)
33-35%	16 (6.3%)
<35%	3 (1.2%)
Unknown	33 (12.9%)

Approach	
Approach	
Transfemoral	36 (14.1%)
Transradial	219 (85.9%)
Device	
Balloon	221 (86.7%)
Stent	247 (96.9%)
IVUS	129 (50.6%)
Closure	6 (2.4%)
Thrombectomy	5 (2.0%)

Procedure Success	
Successful	250 (98.0%)
Partially Successful	4 (1.6%)
Unsuccessful	1 (0.4%)

Procedure Complications (as reference to international standard)

Indicator	Rate (No. of Patients)	
	Our Sample	Audit Criteria
Vascular access injury requiring surgery or major bleeding	0.4% (1)	<2.0%
Emergency CABG	0% (0)	<1.0%
Transfusion of whole blood or RBCs post PCI	0% (0)	<5.0%
Post-procedure stroke	0% (0)	<1.0%
In-hospital risk-adjusted mortality for all patients	0% (0)	<2.0%

Under the audit period, 4 cases were found to have in-hospital major complication. Figures on PCI complication are listed in the following table.

Complication	No. of case (Rate)
Overall Rate (≥ 1 complications)	4 (1.6%)
Vascular Complication	1 (0.4%)
Unplanned Re-coronary Angiogram	1 (0.4%)
Cardiac Tamponade	1 (0.4%)
Retained of guidewire in OM branch	1 (0.4%)

- Further analysis on the association between PCI complications and various factors revealed that those cases with peripheral vascular disease (PVD) were found to have a higher complication rate (50.0%) than those without PVD (0.8%). (Crude OR, 124.5; p<0.001, Fisher's Exact Test)
- Results were similar as those suggested in the literature.

Conclusion

- The overall performance of the PCI in our hospital was satisfactory with complications rate similar to the international standard.
- Compliance rate of the audit was satisfactory (84.4%), which may be improved with better communication between cath lab staff and the doctors.

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Management of Stroke: Current Update

18 th September 2012

From Coil to Flow Diversion - A Revolution in The Treatment of Cerebral Aneurysm

Professor Kwok Ching Kwong, John
Specialist in Neurosurgery

Hippocrates, the father of medicine, first recognized stroke over 2,400 years ago. At this time stroke was called apoplexy, which means "struck down by violence" in Greek.

Medical science continued to study the cause, symptoms, and treatment of apoplexy and, finally, in 1928, apoplexy was divided into categories based on the cause of the blood vessel problem. This led to the terms stroke or "cerebral vascular accident (CVA)." Broadly speaking, there are two types, grouped by the causes: haemorrhagic and thrombotic strokes. One specific type of haemorrhagic stroke, subarachnoid haemorrhage SAH, has taken a revolution in the treatment methods during the last two decades. The classical craniotomy method to stop aneurysm from rupturing was replaced by endovascular transcatheter embolization with Guglielmi Detachable coil GDC. This was the turning point of aneurysm treatment. Initially, the less invasive method was reserved for poor grade SAH, surgically inoperable aneurysms and old patients that could not withstand surgical trauma. When the International Subarachnoid Trial ISAT result released in 2005 LANSAT, the neurosurgical landscape changed abruptly. In Europe in particular, nearly all aneurysms are treated by coils. Further enhancement of the method was taken place. Stent and balloon assisted coiling were added to secure wide neck aneurysm. However, the mass effect created by the densely packed coil in large aneurysm remained unsolved. By increasing the porosity of the stent to become a blood flow diverter device FDD, it was found that the aneurysm thrombosed and resolved within six months without the use of coils. Two years ago, FDA approved the use of such device after seeing the magical result of reconstructing of vessel and surface relining of the face of aneurysm with flow diverters. Within a period of 10 years, aneurysm surgery has almost vanished and biomedical engineers are pushing out improved coils, stents and FDDs in the order of months if not years. Technology continues to advance and soon enough, the metal based stent or flow diverter shall be replaced by bio-degradable and drug impregnated materials to prevent endothelial thickening and stenosis.

Today, there is a wealth of information available on the cause, prevention, risk, and treatment of stroke. Although there is no cure, most stroke victims now have a good chance for survival and recovery. Immediate treatment, supportive care, and rehabilitation can all improve the quality of life for stroke victims suffering from rupture of aneurysm.

Stroke Management: Medical Perspectives

Dr Tsang Kin Lun
Specialist in Neurology

Medical management of stroke can be divided into acute phase treatment and prevention. The NINDS intravenous thrombolytic trial in 1995 has revolutionized acute ischaemic stroke treatment. Knowing that neuronal death and infarction evolve in a time dependent manner, prompt dissolution of clot and restoration of blood flow to ischaemic brain can limit the size of infarct, promote reperfusion and improve functional outcomes. The therapeutic window is narrow. It was three hours and recently it has been extended to 4.5 hours for the onset-to-needle time. Within this interval, intracerebralhaemorrhage and other contraindications like bleeding tendency or uncontrolled hypertension must have been excluded. The notion "time is brain" is often propagated. If the thrombolytic can be given within 3 hours, the number needed to treat (NNT) to achieve a good functional outcome is 5; whereas the NNT is 20 if the thrombolytic is given between 3 to 4.5 hours. The procedure is not without risk. Debilitating or fatal haemorrhage occurs in 6% of patients. A pre-defined protocol is best to facilitate timely administration of thrombolytics to indicated patients. It involves shortening of administration work, easy access to imaging study, prompt assessment by neurologist and readiness of medication and nursing care. Main constraint is public awareness because majority of patients when presented to the hospital have already passed 3 hours from the onset time.

Prevention is always the best. With the common pathophysiology of atherosclerosis, stroke shares many risk factors with coronary heart disease. However, hypertension stands out as the most important single risk factor. Its odds ratio as a stroke risk factor is 2.6 and its population attributable risk is 40%. It is also a major cause for other risk factors like atrial fibrillation or carotid stenosis. Screening of hypertension is most effective at the primary care level and should be able to detect it early. Untreated hypertension is associated with leukoaraiosis or microbleeds in the brain and can lead to parkinsonism or dementia. Treatment of hypertension does not matter with which class of anti-hypertensive but count on the magnitude of blood pressure lowering. Every mmHg accounts and there is no lower limit to achieve when treating hypertension, as long as the patient is asymptomatic. Nowadays hyperlipidaemia, especially raised triglyceride, is gaining attention as a significant stroke risk factor. More than 75% of stroke can be prevented by controlling hypertension, cessation of smoking and regular exercises.

HOSPITAL ACTIVITIES

Team Building Workshop

(01 - 02 /11/2012)

With good sunny weather, a full-day "Team Building Workshop", was successfully completed on 1st and 2nd November 2012 with a total of 77 staff participated.

The objective of this workshop was to promote trust and effective communication. Through various team building games and sharing sessions led by the professional trainer, staff had learnt how to develop functional systems that will enhance trust; mutual support, and productivity.

With these added-values and beliefs, staff can continue to do great work in our trustworthy and harmonious working environment.

This workshop was recognized positively by the participants. Their valuable comments and enthusiasms fueled our continuation of team spirit for our staff in the near future.

2012年追思彌撒 (15/11/2012)

醫院本年度追思彌撒已於十一月十五日(星期四)在基督君王小堂舉行，由陳永超神父主禮，參加人數大約有九十多人，包括在本院去世病人的家屬、本院各部門員工的代表以及修會修女。

在每年的追思彌撒中，醫院特別為在本院去世的病人祈禱，祈望天父接納他們的靈魂，讓他們早日獲享天國的福樂。陳神父在講道中，鼓勵我們在世善渡我們的生活，不要只顧現世生活的成敗，要為將來回歸天鄉而做好心靈的準備。

今年的禮儀增加了對亡者的獻香禮，病人家屬踴躍帶來亡者的照片，放置在祭台前的位置，由主禮獻香及帶領全體參加者行三鞠躬禮，為表示對亡者的敬意及在回歸天鄉路上的一點心意。

追思彌撒在濃厚的祈禱氣氛中順利進行，在此誠心感謝醫院內各部門派員工代表出席，也感謝各位禮儀人員抽空服務，願主祝福大家！

主內平安！

牧靈部

週年火警演習 (28/11/2012)

保障病人及員工安全是聖保祿醫院堅守的承諾。為確保醫院一旦發生火警時，對病人及員工的影響減至最低，本院於二零一二年十一月二十八日舉行週年大型火警演習，模擬A15病室之備膳室的微波爐失火，以測試有關部門的應變反應。參與是次大型火警演習的員工及模擬病人多達三百多名，來自全院各個部門。香港消防處派出四名消防人員到本院觀察演習過程。

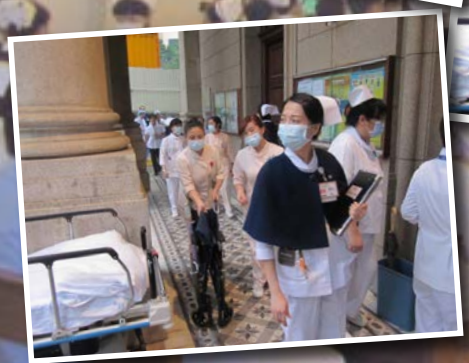
演習的結果理想，參與的臨床醫護人員及後勤支援部門員工，均能在事發時按照既定機制執行應變措施，有秩序地進行疏散。演習隨後進行分享會，本院感謝消防人員在場提供寶貴意見，以進一步完善及優化本院的火警應變措施。

入院部透過廣播系統向全院發出火警消息。

員工在模擬火警現場執行應變措施。

指揮中心成員在火警中擔當重要的統籌及溝通工作。

三百多名員工由工作崗位疏散至集合地點。



各個部門均派員參與火警演習。

INTRODUCTION
Of New Faces

Hello, I am Dr Raymond Wan Chi Kin, Respiratory Specialist. I am very glad to begin a new page of my career in St. Paul's Hospital after serving in Hospital Authority for more than ten years. During my service in the public sector, I had the opportunity to rotate to several hospitals including Prince of Wale's Hospital, Tuen Mun Hospital, Kowloon Hospital and Ruttonjee Hospital gaining a wide range of experience and knowledge. Apart from general Respiratory medicine, I also have special interests in Interventional Pulmonology and Pulmonary Oncology where I was trained in Queen Mary's Hospital. I look forward to the challenges ahead and it will be my pleasure serving you at St. Paul.

Dr. Wan Chi Kin, Raymond
Specialist in Respiratory Medicine

Dr. Lo Chi Hung
Specialist in Neurology

It is my pleasure to be given a chance to introduce myself in the "News Letter" of St. Paul's Hospital. My name is Lo Chi Hung. I am currently serving as a Resident Medical Officer in St. Paul's Hospital. I am a Specialist in Neurology. It is my great honour to join this big family since November 2012.

Life was not easy when I graduated from local medical school in year 2002. Some of you might recall how difficult it was for fresh graduates to receive an offer after my 1-year internship in the "Post-SARS" era. My interest has all along been in the field of internal medicine, yet I could only get an offer from general out-patient clinic as a service resident at that time. I did not give up and I determined myself to be a physician some day. I tried my best to self-learn during lunch hour / after work and eventually I passed the first part of professional examination of internal medicine in January, 2004. Subsequently I joined the Department of Medicine of Queen Mary Hospital as service resident. Later I joined the Department of Medicine & Geriatrics of United Christian Hospital since July 2004, where I accepted an offer as resident trainee and acquired most of my medical knowledge and skills there. Eventually I was accredited fellowship from the Hong Kong College of Physicians and became Specialist in Neurology in year 2010.

I am glad to see so many familiar faces in St. Paul's Hospital, including my respectful teachers / professors of medical school, my fellow colleagues in the old day when I worked in other hospitals under Hospital Authority. This is really a small world after all.

I have special interest in the field of stroke and vascular neurology. In general, the standard of medical service in the public sector is jeopardised to some extent due to limitation of resources. I wish and I am ready to apply my knowledge and skills to provide timely and better medical care to patients suffering from various neurological diseases in the private sector.

CME
Announcement

Topic	Chairman	Speakers
15/1/2013 ***Management of Stroke: Current Update*** 1. Recent Trend in Treatment of Acute Thrombotic Stroke 2. Advanced Imaging for Acute Stroke Management	*Dr. Chan Kam Wing, John* Specialist in Radiology, St. Paul's Hospital	1. *Dr. Kwok Ching Kwong* Specialist in Neurosurgery 2. *Dr. Poon Wai Lun* Specialist in Radiology

Time: 7:30pm - 9:00pm (Light Refreshment Provided)
Venue: Conference Room, 2/F, St. Paul's Convernt
Registration: Ms. Merrillin Leung, Tel: 2830 3905, Fax: 2837 5271, Email: sph.sdd@mail.stpaul.org.hk
CME/ CPD Accreditation for all colleges (Pending approval). CNE Point: 1 Point