



聖保祿醫院  
St. Paul's Hospital

# NEWSLETTER 院訊

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"I made myself all things to all men" (1 Cor. 9:22)  
“我為一切人成為一切” (格前 9:22)

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***“Be the Legend” represents the unique characteristics of athletes and Hong Kong people. All winning athletes will themselves be legends and admired by their contemporaries and posterity.***

**「創造傳奇一刻」代表運動員及香港人獨一無二的堅毅精神。運動員臨場發揮他們的個人潛能及獲得勝利一刻時都在創造一個個不朽的傳奇。**

Hong Kong has a successful East Asian Game 2009, which reminds all of us in St. Paul's Hospital the joyful experience in 2009 as well.

We did it. The new St. Paul's Hospital was born. We have moved to our New Hospital Block A on December 27, 2009. One would agree that the move has been smooth and are professionally done. It is the experience of being the Legend, which represents the unique characteristics of St. Paul's Team.

The Legend does not happen overnight. It contributes by the tremendous effort days and nights by each one of us from many disciplines of professionals. The Planning Committee has led us through many tough discussions and decisions with positive open-minded attitude. We become very experienced team of change management. The wisdom of the team has merged together with the needs of the frontline team create the operation model, which take us to the new horizon of St. Paul's Hospital:

1. The Hospital is modernized to address the needs of both internal and external customers.
2. The new Out-Patient Department will be opened by end of February 2010 with orientation to specialty specifics of our patients' needs.
3. We have moved our Dental Clinic to the new location adjacent to St. Paul Nephrocare Dialysis Centre and the Eye Centre.
4. The Admission Office is to transform incrementally to provide services of registration and hospitality. We have a new name called Department of Registration and Customer Services.
5. The new Department of O&G and Nursery provides the specialty services including emergency management of complications, equipped for nursery and NICU facilities, the overall comfort of our customers and the new facilities for ante-natal classes.
6. The Operation Theatre provides SIX brand new facilities including state of the art minimal-invasive suites, latest LED OT lighting technology and numerous newly purchased medical equipments. The Facility

also provides new management model of OT further enhances specialization of 9 specialty-based nursing teams led by medical specialists.

7. The newly renovated ICU provides professional facilities including 3 single rooms and 3 beds equipped with new equipments such as Respirators, and New Wi-Fi based Telemetry etc. The new ICU medical advisory committee has led us into management reform with focus on the areas of clinical governance. We are very exciting to announce that the St. Paul ICU Course will start in April 2010. We are planning to set up the HDU in near future.
8. The new Diagnostic and Interventional Radiological Department provides new MRI and CT Scan, latest technology of Mammography, Ultrasound, Fluoroscopy and many mores. Together with the existing CT Scan and MRI, we have doubled the services to shorten the waiting time of our patients. We have also started to implement the advanced technology of RIS and PACS which digitize the radiological images lively available in each medical consultation rooms, OT rooms, endoscopy rooms, each patient bed via the newly installed Bed-side Terminal. The highly advanced technology provides safe and professional digital storage of the radiological files.
9. The new in-patient wards provide better comfort to our customers including dedicated ward for isolation, new children ward and Day-ward.
10. The New Cardiac Centre provides the latest state of the Art Cardio-Vascular Interventional Laboratory Machine that is the first in Hong Kong. We are proudly introduced Dr. Tse Tak Sun, the Consultant Cardiologist as our Department Head of Cardiology. The Centre also provides the newly equipped Electro-graphic Diagnostic Department and Cardiac Clinic. The Centre will open on March 1, 2010.
11. The new Department of Pathology was born. We move our clinical lab and histo-pathology lab together that over 80% are brand new equipments to provide better and faster services to our patients and doctors.



12. The new Department of Urology provides comprehensive urology services including facility for endo-urology surgery under GA.

In addition to the above-mentioned development, we have kicked off the SHIP Project (St. Paul's Hospital Informatics Project). The SHIP will be implemented in three phases over 24 months. It covers comprehensive HL7 and web-based hospital informatics which include the followings:

1. ERP and Patient Billing/FICO
2. Material Management (MM)
3. Facility Management (EAM)
4. Human Resources (HRMS)
5. Patient Queue System
6. Meal Ordering System
7. Pharmacy Module with First Data Bank and e-MAR
8. Clinical Process Module with ICD-10
9. Patient Management
10. LIS and Snow-M CT
11. RIS and PACS
12. OT Module
13. Nursing Informatics

We have also completed to change the telephone and data system which is digital and Wi-Fi based. St. Paul's Hospital goes Wi-Fi already. We are working very cautiously to formulate our data security strategy to protect patient privacy and data confidentiality.

We have also worked with Hang Seng Bank that all ATM Machines in Hong Kong allows Bill Payment Services by simply "click-on" St. Paul's Hospital. We have moved one big step forward. We are very proud of each and everyone in St. Paul's Hospital whom they have contributed tremendously days and nights to achieve the outcome as mentioned above. We thank God and we are very graceful and honor to be part of the Legend.

"Success is waking up in the morning, so excited about what you have to do that you literally fly out the door. It's getting to work with people you love. Success is connecting with the world and making people feel. It is finding a way to bind people who had nothing in common but a dream. It is falling asleep at night knowing you did the best job you could. Success is joy and freedom and friendship."

We would not say we are successful, however, we proudly and confidently feel that we are better than yesterday.

It is a life long process to learn and improve. The team is working on our future Hospital that expects to be finished in 2014.

I would like to take this opportunity to sincerely appreciate each of our members and partners of St. Paul's Hospital that you have made us proud.

And, wish you all have a prosperous Chinese New Year.

*Samuel Cheung*  
General Manager

## 聖保祿醫院 - 祝聖儀式

在2010年1月20日上午9時45分聖保祿醫院為F座 (site office)、兒童病房(A8)、物理治療部(A7)及化驗室(A6)進行祝聖儀式，本院很榮幸邀請聖瑪加利大堂周景勳神父蒞臨主持。儀式在F座 (site office) 開始，最後於11時在A座新職員餐廳結束禮儀，隨後薄備茶點。







# Amniotic Fluid Embolism(AFE)

## *very rare and fatal?*

### Introduction

A few months ago, a highly published case of suspected Amniotic Fluid Embolism (AFE) occurred in a private hospital in Hong Kong resulting in maternal death. This case has raised the public's awareness of this potentially fatal condition. To many obstetricians, AFE is a very rare phenomenon with an extremely high fatality rate. Or is it? The purpose of this article is to review the latest medical opinions about this condition.

### Incidence

Traditionally, AFE is considered to be a condition which is very rare with a very high mortality rate. In an evidence-based text book for MRCOG published in 2004<sup>(1)</sup>, it is stated that Amniotic Fluid Embolism is a very rare condition with an incidence of 1 in 80,000 pregnancies. In fact, there has been a wide range of reports on the incidence of Amniotic Fluid Embolism. A report in the Lancet in 2006 from a Canadian group<sup>(2)</sup> (covering 3 million hospital deliveries in Canada between 1991 and 2002) indicated an incidence of 6 per 100,000 singleton pregnancies. Another report in 2008 from researchers in the United States<sup>(3)</sup> (covering 3 million births from 1998-2003) indicated an incidence of 7.7 in 100,000 births. Both studies are retrospective studies, i.e. the researchers just dig out old patients' records, look at the diagnosis recorded in these records and then do a statistical analysis. Such retrospective methods have been criticized to be too dependent on the quality of record keeping. Besides, as AFE has always been known to be a very fatal condition, there is always the possibility that obstetrical cases with complications have been dumped into this category to avoid blame on the health care team looking after the patients.

On the other side of the Atlantic, the UK Obstetrics Surveillance System (UKOSS) is an on-going prospective study involving ALL the consultant-led maternity units in the U.K. Each week, the persons responsible in each maternity unit are asked to file a return for rare obstetrical events (including AFE) occurring in their units. The 2008 report of UKOSS<sup>(4)</sup> gives an incidence of AFE of 1.8 cases per 100,000 (38 confirmed cases in approximately just over 2 million maternity cases over a three year period).

It should be noted that it is generally accepted that results from prospective studies are more reliable than those from retrospective studies because of the limitation in tracing records and ensuring the accuracy of past records. It has

records and ensuring the accuracy of past records. It has also been noted by UKOSS in its 2008 report that active surveillance yields more than twice the number of cases than those by passive registration. Given such an incidence, it can be expected that it is almost certain that there will be one case of Amniotic Fluid Embolism every one or two year in Hong Kong. Readers may also like to note that in the HKCOG territory-wide audit exercise of 1994, there were 5 cases of AFE, but no case was recorded in the 1999 audit nor the 2004 audit.

### Mortality of AFE

The often quoted mortality of 80% for AFE is probably based on a review from 1979 suggesting a mortality of 86%. The national registry from the USA in 1995 suggested a mortality of 61% but only 15% of cases survived neurologically intact.<sup>(5)</sup> More recent population-based surveys, however, suggested that the mortality may be less than 30% (13% in the Canadian survey, and 21.6% in the U S survey mentioned above).

In the UK, prospective study by the UKOSS (published in 2008) over a three-year period covering some 2 million maternities indicates that the mortality rate is 24% (95% CI 11-40%).

The reason why mortality is lower in recent years is probably due to better medical care, but it may also be due to higher awareness of the condition and more cases are being labeled as such. Thus, in the U K., from 1991 onwards, clinically obvious cases have been included as well as cases that have been confirmed histologically. This would also increase the number of reported cases and thus lower the overall mortality.

In the latest UK triennial confidential enquiry into maternal deaths, there were 19 deaths from AFE (about 13% of all direct deaths)<sup>(6)</sup>. Thus AFE has become the second most common cause of maternal death (after thrombosis and thrombo-embolism) in the U.K. Another study from the US<sup>(7)</sup> reports AFE being responsible for 14% of maternal death, again the 2nd most common cause (just after complications of pre-eclampsia).

### Can AFE occur in asymptomatic patients ?

In a 1985 paper by Kuhlman et al<sup>(8)</sup> the author described the finding of amniotic fluid material (squames, lanugo hair and mucin) in the pulmonary arterial blood in 5 patients, but only one of them had clinical symptoms of



AFE and the other 4 did not. In the patient with clinical symptoms, there were plentiful squames (squamous cells), lanugo hair and mucin. For the other 4 control patients, one did not have any confirmed fetal amniotic material at all while the other three had some, and only one of them had lanugo hair in her pulmonary arterial blood. The conclusion is that it is possible to find a small amount of amniotic fluid material in patients with no clinical symptoms of AFE. The criticism is that this study is too small and that the 4 non-AFE patients all have complications like hypertension, heart diseases, diabetes and pre-eclampsia, etc. The interesting thing is that this study also indicates that if one does not use special precaution in processing the blood samples, it is possible for the sample to be contaminated with squames from the skin of the technician.

In another 1986 paper by Lee W<sup>(9)</sup> et al, the author took pulmonary artery blood specimens from 14 patients with severe pregnancy-induced hypertension and found that 2 of them had squamous cells in the blood smears after they had eclamptic seizures (convulsions), and another one patient had trophoblasts (cells from the placenta) in the blood. The authors were not able to detect other amniotic fluid material like lanugo hair or mucin. This study is also limited by the fact that the patients were all abnormal obstetrics patients.

The only conclusion one can draw from these studies is that squamous cells may be found in patients without signs and symptoms of AFE. One

still does not know how common this phenomenon is, nor the part played by other components of fetal amniotic material (e.g. lanugo hair, mucin) in producing the clinical syndrome. For example, it may well be that the presence of lanugo hair may indicate a massive embolism for clinical signs and symptoms to develop, whereas a minor embolism with only squamous cells will either produce little or no symptoms. It should be noted that in a 1997 paper by Kobayashi et al<sup>(10)</sup>, the author used special stain to identify fetal antigen in the maternal lungs of four women dying of AFE, but did not find this material in the lungs of four other pregnant women dying from other causes.

Up to this moment, most authority will still accept a diagnosis of AFE when there are clinical signs and symptoms plus histological confirmation of fetal amniotic material in the lung of the mother. In any case, where histological confirmation is not available, diagnosis can still be made on clinical grounds in the absence of other causes for the clinical syndrome. In the U K, the case definition used in the U K Obstetric Surveillance System (UKOSS) is:

Either a clinical diagnosis of AFE (acute hypotension or cardiac arrest, acute hypoxia or coagulopathy in the absence of any other potential explanation for the symptoms and signs observed), Or a pathological diagnosis (presence of fetal squames or hair in the lung. In another words, AFE can be a clinical diagnosis.

### Conclusion

AFE may not be as rare or as fatal as it was once held to be. It may be more frequently diagnosed due to a shift in the criteria for diagnosis. It is even possible that many women have some form of amniotic fluid in their blood at the time of delivery, but perhaps only the susceptible ones develop severe anaphylactic reaction leading to the clinical syndrome.

*Dr. Law Chi Lim, Robert*

*Specialist in Obstetrics and Gynaecology*

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# Department of Pathology

The advent of year 2010 ushers in a new era for pathology services at St. Paul's Hospital, with introduction of important changes that will greatly improve quality of care for our patients.

## A Consolidated Pathology Department

There will be a single consolidated Pathology Department within which are the Anatomical Pathology (Histopathology & Cytopathology) and the Clinical Laboratory Divisions. This consolidation brings many advantages including enhanced administrative accountability and governance, as well as improved utilization of space and material procurement.

## New Venue, Equipment and Staffing

In January, the Department will move into the 6th floor of the newly completed Block A building. The new venue is purpose-designed and offers an environment that promises improved workflow, safety and efficiency. The added space will permit acquisition of new equipment to enhance service, the addition of a designated Microbiology suite that meets international standards, and the recruitment of additional experienced technical staff.

## Scope of Service

The Anatomical Pathology Division offers histopathology and cytology services, intra-operative frozen section consultation, immunohistochemical studies and fine needle aspiration biopsy of superficial lesions. The Clinical Laboratory Division offers a full spectrum of laboratory services including Chemistry, Immunology, Haematopathology, Blood Banking and Microbiology, using a range of state of the art equipment, complemented by an experienced staff and rigid quality control measures.

## The New Laboratory Information System

The Hospital will enter a new digital era with the introduction of the new Hospital Information System. The simultaneously implemented Laboratory Information System adds numerous advantages. It will improve efficiency for professional, secretarial and technical staff. It will also enhance patient safety by facilitating patient

and specimen identification. The clinical staff will be able to view full pathology results online without time lag via the Hospital Information System and also to trace the status of tests in progress.

## Epilogue

The Pathology Department of St. Paul's Hospital has long been recognized by our clinical peers in both the private and public sectors for its high quality of service and the strength of its professional staff with strong academic background. There are stringent internal and external quality assurance measures to ensure consistent and high quality of care. Our strong professional, technical and supporting staff, the new venue and facilities, and the addition of the powerful LIS system will certainly help in our pursuit of excellence and in enhancing patient care.



*Microbiology Section – New Class II Safety Cabinet*



*Clinical Laboratory – General Laboratory Area*



# The Christmas Dinner 2009

The Hospital Christmas Party 2009 was held on 21st December, 2009 (Monday) in the hall of St. Paul's Convent School (Primary Section). Apart from the most popular

## Introduction of Dr. Lau, Medical Superintendent



lucky draw, all our hospital colleagues and members of hospital management thanked to Dr. David Fang for his valuable contributions and dedications to the Hospital. We were pleased to enjoy the lively evenings and delicious meal. Taking this opportunity, the hospital would like to express sincere gratitude to the organizing committee for making this event so successful and having a fun night!

*On behalf of the Hospital Management, Mother Ho presented a souvenir to Dr. David Fang*

## 聖保祿醫院提供嶄新的繳款服務

於2009年12月起，醫院透過恒生銀行為本院病人提供嶄新繳款服務，成為全港首間醫院為其病人提供24小時全面自動化的繳款渠道。醫院病人可憑發出的賬單號碼，透過恒生及滙豐自動櫃員機、網上銀行服務及電話理財服務，隨時隨地繳付有關醫療費用。

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