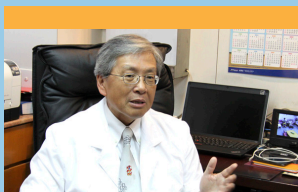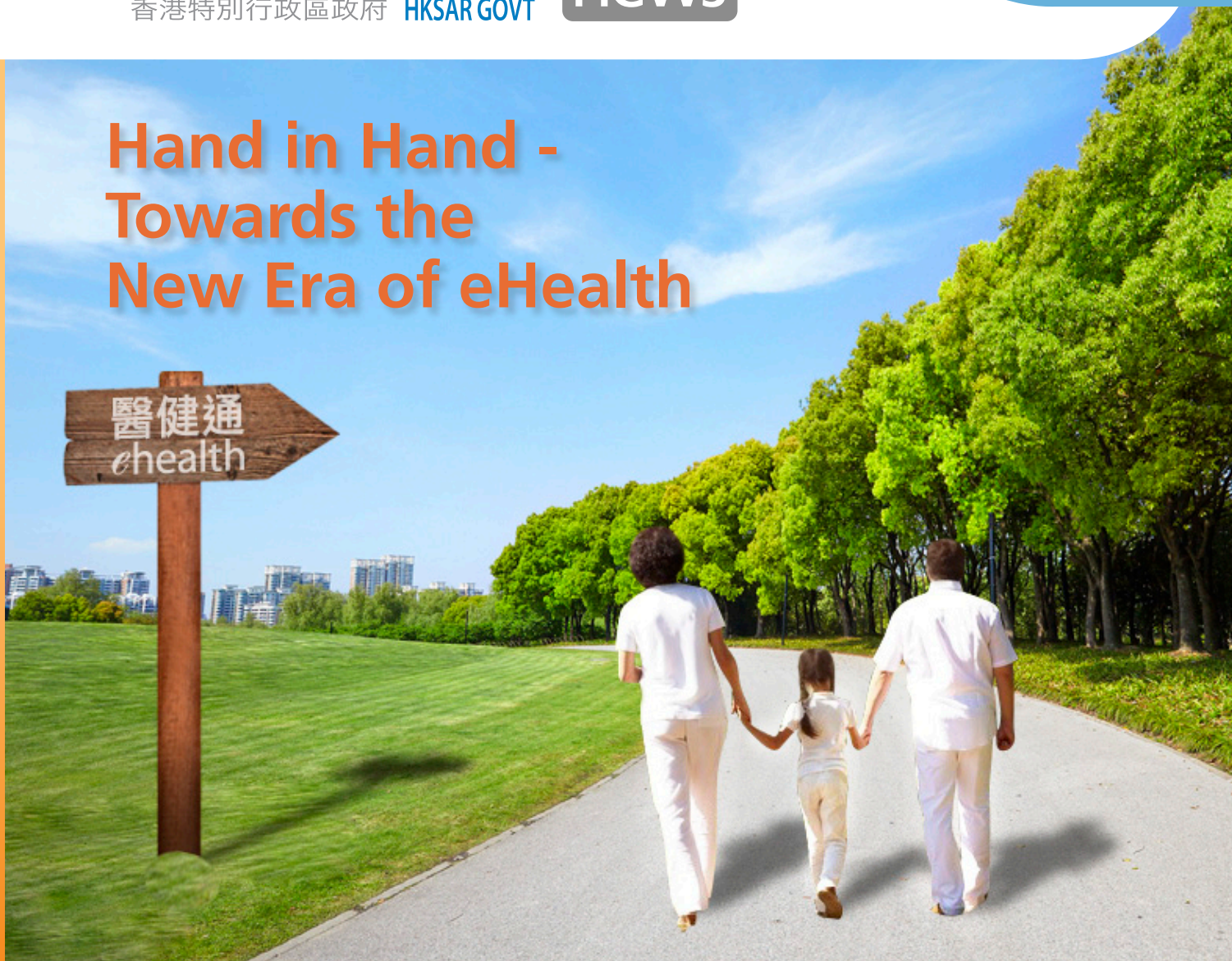# Hand in Hand - Towards the New Era of eHealth

醫健通
ehealth

Dr Tse Hung-hing:
Joining Forces –
Participation of Private
Medical Practitioners in eHR

Mr Pang Hung-cheong:
Patients' Support and
Concerns over eHealth
Record Sharing

Learn More About eHRSS

System Security –
Paramount Importance at eHRSS

Release of Clinical
Management System On-ramp

HIMSS AsiaPac14 –
Digital Healthcare Week

Game Zone

Editor's Note

Time is fleeting. With the new year just around the corner, here comes our 6th issue of eHealth News since its debut last year. During this festive season, we would like to express our heartfelt gratitude to all readers and healthcare professionals for their unfailing support and positive feedback to the development of Electronic Health Record Sharing System (eHRSS) in Hong Kong.

Towards a New Era of eHealth

Upon passage of the eHRSS Bill by the Legislative Council, eHRSS will roll out in 2015. With commencement of the System, sharing health-related data among all levels of healthcare parties could benefit patients with continuity of care, as well as achieving better quality of healthcare services in Hong Kong. Promotional campaigns will be launched to encourage registration in the eHRSS. You can learn more about the System from the *eHR Office website*. We earnestly look forward to your active participation.

Perspectives from Practitioners and Patients

Your support and participation is the key to success for the eHR Programme. We have selected **"Hand in Hand – Towards the New Era of eHealth"** as the theme for this issue, with a vision of all stakeholders joining hands to enter into a new chapter of ehealth era. To look at the eHRSS from the perspectives of different stakeholders, we have invited an experienced private practitioner and an active patient group member to share their views with us. In Feature Article, you can have a comprehensive overview of the major concepts of the System.

Release of CMS On-ramp

Clinical Management System (CMS) On-ramp is an advanced and user-friendly system which allows private healthcare providers to manage the clinics' operation and enjoy the benefits of eHR sharing. It is free of charge and the standalone version is now released. In eHR Updates, you will learn more of the CMS On-ramp and the way to obtain such a well-developed application.

Last but not least, we have designed a fun word search in the Game Zone for you to navigate the new world of eHealth. Don't miss this great opportunity to win a nice prize! Hope you would find this issue both informative and interesting.

Your Views

We would be interested to receive your feedback on any matters related to the eHRSS. Articles related to health record issues are most welcome for sharing in the upcoming eHealth News. Please send us your views by email to *eHR@fhb.gov.hk*.

Joining Forces – Participation of Private Medical Practitioners in eHR

Dr Tse Hung-hing

Immediate Past President, Hong Kong Medical Association

Since the Government has tabled the Electronic Health Record Sharing System (eHRSS) Bill to the Legislative Council for vetting, different stakeholders and the public have voiced their opinions. Being one of the major stakeholders of the eHR Programme, private medical practitioners are certainly concerned about the legislation. To better understand their views, we have interviewed Dr Tse Hung-hing, Immediate Past President of the Hong Kong Medical Association.

Health Record Computerisation Vs eHR Sharing

Before talking about the eHRSS Bill, Dr Tse introduced the current usage of eHR in the private clinics in Hong Kong. "I understand that some private doctors are still relying on paper-based medical records in their clinical operations," Dr Tse described. "Meanwhile, quite a large number of private clinics are operating with both computer-based and paper-based medical record systems. In general, laboratory results, X-ray images, patient's demographic data and dispensary are computerised while hand-written diagnosis records are maintained."

In view of the inevitable trend of computerisation in clinics, Dr Tse said, "In general, it is not a problem for young doctors to utilise computers for recording health data because they have got used to it while working in the public healthcare sector. However, whether they are willing to share their patients' health records in the eHRSS will be a different story."

Concerns of Private Doctors

How to motivate private doctors to join the eHRSS? Dr Tse pinpointed four issues that must be further addressed in order to encourage the participation rate. "Firstly, you have to let them know the benefits they will receive from the

Concerns of doctors must be addressed to motivate them to join the eHRSS.

computerisation of medical records and also the compelling reasons for them to make a change of their current practice. Secondly, they are concerned about the potential risks of errors emerging from the computerisation and the means to avoid such risks," he systematically analysed.

"Thirdly, the doctors would like to know how to deal with the existing paper-based records and the transitional processes required if eHR sharing is adopted. Finally, despite the implementation of eHR, they might worry about the possible leakage of patient information through the sharing platform. They may also require more understanding on data conversion preparation as well as the incentives for eHR sharing," Dr Tse further elaborated.

Specific Legislation to Protect Privacy

Having attached paramount importance to data privacy and system security, the Government has formulated eHRSS legislation prior to the commencement of the eHRSS. Dr Tse pointed out that the formulation of specific eHRSS Bill is necessary due to the practical needs. "Because of the strong mobility of electronic records on the sharing platform, there are possibilities of data theft and abuse of usage. Thus rules and regulations must be set out to safeguard the usage of eHRSS."

eHR-specific legislation is formulated to protect the privacy of the patients.

When asked whether the Bill has provided adequate protection to health data, Dr Tse responded, "From the perspective of a private medical practitioner, I believe the specific legislation can fairly protect patient's privacy. However, it is equally important to consider whether patients will find such measure sufficient. Depending on the perspectives, it is very subjective to say whether the legislative protection is adequate. In addition, opinions of the Privacy Commissioner for Personal Data (PCPD) must also be taken into account."

Trust between Patients and Doctors

To further protect patient's privacy, the PCPD prefers the implementation of "safe deposit box" to allow patients to disclose their health data at their own discretion. However, Dr Tse held a different view. "With the 'safe deposit box' facility, healthcare professionals might be restrained from accessing comprehensive health data to provide quality care to patients. Besides, it may hinder the trust or rapport between patients and doctors."

Dr Tse indicated that "safe deposit box" may undermine the trust between patients and doctors.

Clear Definition of Responsibilities and Penalties

While it is important to strike a balance between privacy protection and health data disclosure for quality healthcare services, Dr Tse suggested, "I believe the legislation must clearly define the principles of eHR sharing to doctors and medical professionals in using the System, and the corresponding penalties incurred in the case of negligence or violation. In particular, adequate deterrence must be adopted in order to prevent misconduct."
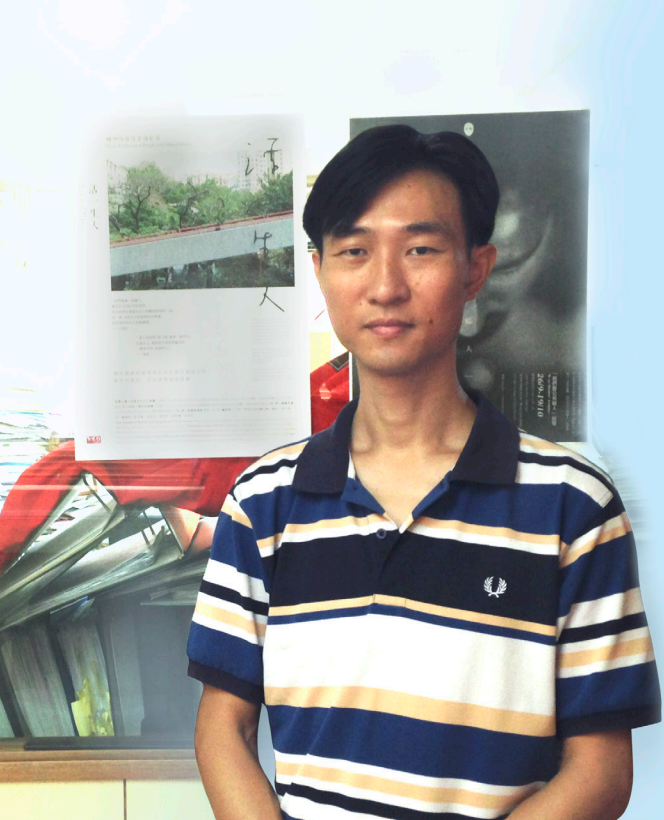
Patients' Support and Concerns over eHealth Record Sharing

Mr Pang Hung-cheong
Community Organiser of Society for Community Organisation

Being built for the benefits of patients, the Electronic Health Record Sharing System (eHRSS) must accommodate the needs and concerns of its beneficiaries. In this article, Mr Pang Hung-cheong, Community Organiser of the Society for Community Organisation shared with us the patients' perspectives on eHealth record sharing.

Support by Patients

At the outset of the interview, Mr Pang indicated the support of patients to the eHRSS. "In general, patient groups support and welcome the development of eHRSS, which can facilitate the continuity of healthcare services offered by both public and private healthcare providers."

Mr Pang then exemplified the benefits to be bestowed upon patients through eHR sharing. "It is quite common for the older generations to visit elderly healthcare centres of the Department of Health and specialist outpatient clinics of the Hospital Authority at different times throughout the year. With eHR sharing in place, medical professionals of various healthcare providers can share medical records of the elderly during consultations, thus avoiding duplicated tests and examinations, saving resources and minimising inconvenience caused to the patients."

Patients in general support the implementation of eHRSS.

Labeling Effect

Labeling effect may make patients with sensitive illnesses step back in joining the eHRSS.

Concerns over Labelling Effect

Despite general support of patient groups to the eHRSS, Mr Pang frankly told us the concerns raised by patients affected by sensitive health problems, such as human immunodeficiency virus (HIV), mental illnesses, or sexually transmitted diseases. "These patients worry that whenever they seek general medical consultations in the future, their full medical records will be disclosed to healthcare professionals who can access to their records. Under such circumstances, the patients may feel anxious about the potential infringement of their personal privacy. In fact, some of them even think they would be labelled and discriminated upon the disclosure of their sensitive health data," Mr Pang said.

"From my understanding, these patients will resist to join the eHRSS when it launches," Mr Pang added. "I believe the Government has to further consider how to help these patients alleviate their worries so that the Programme could virtually benefit all patients."

Clinical Staff

Registration Staff

NAME:XXX
HKID:XXX

Mr Pang suggested that role-based access control could help ease patients' concerns.

Views on eHRSS Bill

Prior to the implementation of territory-wide eHRSS, the Government has prepared the eHRSS Bill to safeguard system security and data privacy. With respect to the draft legislation, Mr Pang indicated, "According to the public feedback, there are no serious issues with the Bill, while the Privacy Commissioner for Personal Data (PCPD) has given some notable comments." He then highlighted two major concerns raised by the PCPD. "Firstly, the Bill does not adequately explain the 'need-to-know' principle and related guidelines in compliance with such a principle. I believe a well-laid eHRSS Bill will help clarify any ambiguity," Mr Pang pointed out.

"Secondly, the PCPD supports the 'safe deposit box' concept, which allows patients to withhold certain sensitive data from all healthcare professionals apart from those to whom he opts for disclosure," Mr Pang said further. Understanding that completeness and integrity of eHR are vital to an accurate and appropriate clinical judgment, Mr Pang believed other alternatives to the "safe deposit box" approach could be further explored. "I presume it is already adequate for some healthcare professional roles, such as nurses and physiotherapists, to carry out respective medical care by partially accessing patients' data. Thus, if there is some sort of role-based access control depending on the roles of the professionals, it might help ease patients' concerns."

Improvement on Healthcare Quality

On the whole, Mr Pang appreciated the development of eHRSS and expected the System would bring better healthcare quality to the patients. He concluded, "Patients could enjoy the continuity of healthcare services from both public and private healthcare sectors without worries on the incomplete transfer of health data between different healthcare settings."

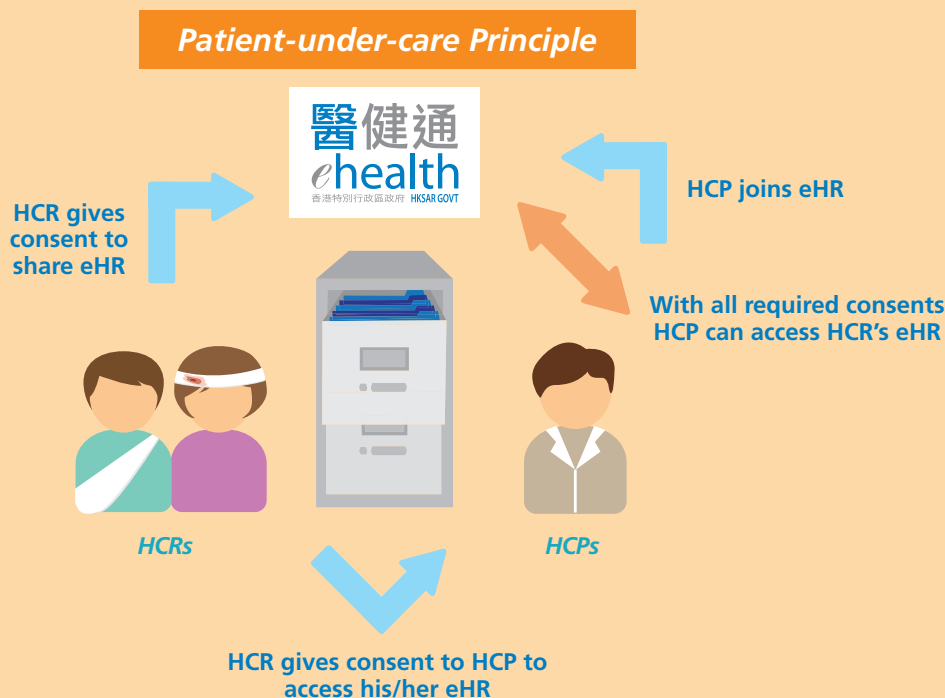*eHRSS would bring better health quality to the patients.*
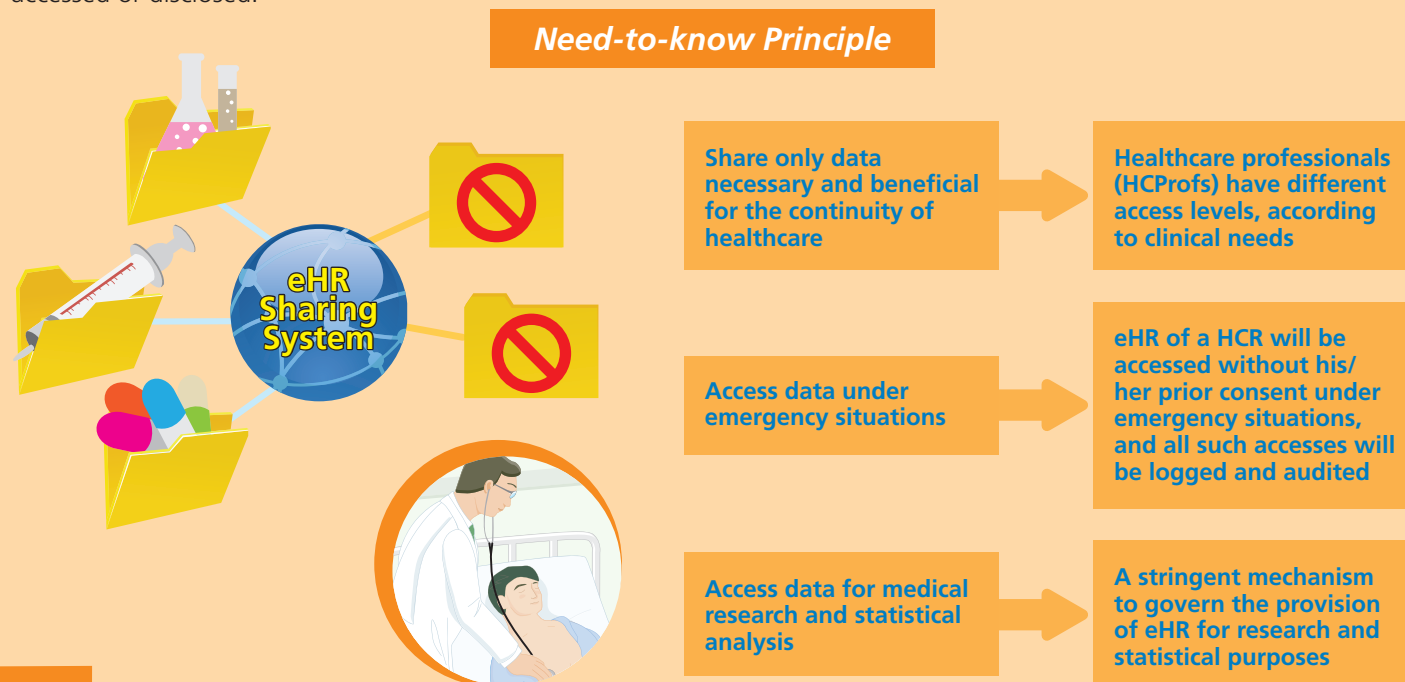
Learn More About eHRSS

Upon passage of the Electronic Health Record Sharing System (eHRSS) Bill by the Legislative Council, the System will operate in 2015. To help you better understand the eHRSS prior to its implementation, let's walk through three key concepts of the System.

Access of eHR

Following the **patient-under-care** principle, healthcare providers (HCPs) may access the health data of only healthcare recipients (HCRs) for whom they are delivering care and with their consent.

Patient-under-care Principle

HCR gives consent to share eHR

HCP joins eHR

With all required consents HCP can access HCR's eHR

HCRs

HCPs

HCR gives consent to HCP to access his/her eHR

By complying with the **need-to-know** principle, only the health data necessary for the delivery of care for HCRs may be accessed or disclosed.

Need-to-know Principle

eHR Sharing System

Share only data necessary and beneficial for the continuity of healthcare → **Healthcare professionals (HCProfs) have different access levels, according to clinical needs**

Access data under emergency situations → **eHR of a HCR will be accessed without his/her prior consent under emergency situations, and all such accesses will be logged and audited**

Access data for medical research and statistical analysis → **A stringent mechanism to govern the provision of eHR for research and statistical purposes**

eHR Participation

Participation of HCRs and HCPs in the eHRSS will be strictly voluntary on basis.

HCRs

Participating with express and informed consent to have their health data shared through the eHRSS

eHR Sharing System

HCPs

Comply with requirements for eHR sharing to upload and access data through the eHRSS

With simple registration procedures, HCPs, HCProfs and HCRs can enrol into the eHRSS through an array of registration channels.

Enrolment of HCRs

HCRs with valid Hong Kong Identity Card or identity documents

In person Registration

醫院管理局
HOSPITAL AUTHORITY

- Around 50 sites in Hospital Authority and Department of Health
- Private hospitals and other HCPs performing eHR enrolment

Not in person Registration

- Online registration at eHR website
- Postal mail
- Fax
- Drop-in boxes of eHR Registration Office
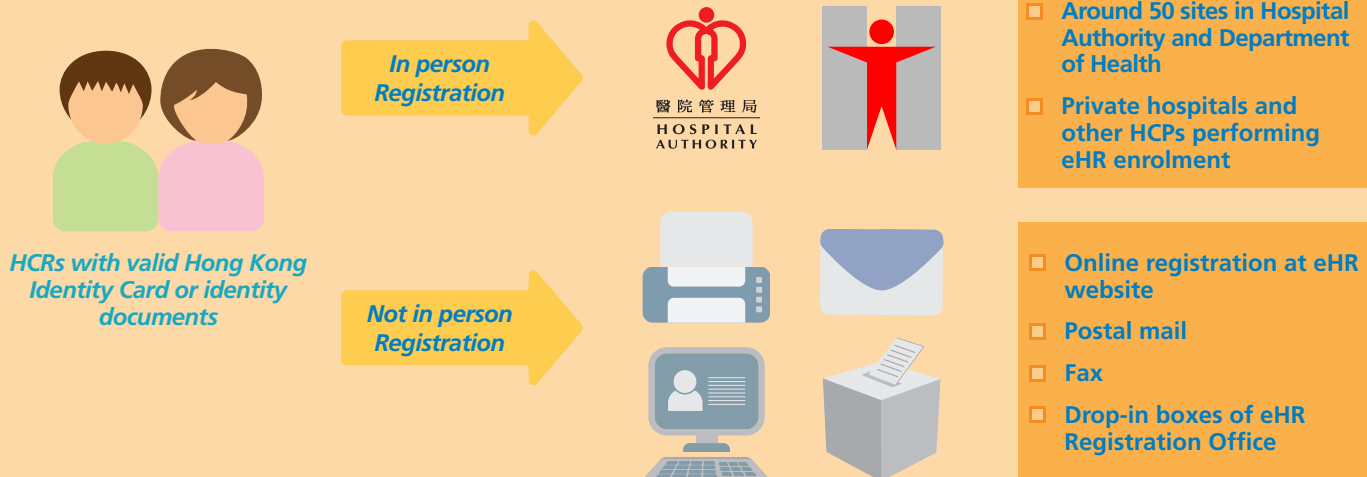
HCRs can withdraw from eHR Sharing and revoke his/her consent to the HCPs at any time.

Enrolment of HCPs and HCProfs

HCPs

- Apply for registration from the eHR Registration Office
- Details of application will be published at the eHR website

醫健通 ehealth 香港特別行政區政府 HKSAR GOVT

eHR Registration Office

HCProfs with valid professional registration status

- Register with HCP which he/she works for

- Access right would be granted according to the role-based access control mechanism

HCPs

Safeguard Patients' Rights

Effective safeguards on privacy and security are in place to protect patients' rights.


eHR Sharing System

Formulation of eHRSS Legislation

- ☐ **Provide legal basis for collection, sharing, use and safe keeping of data under the eHRSS**
- ☐ **Provide robust legal protection for the privacy and confidentiality of patient information**

Governance and Enforcement

- ☐ **Government-led operation of the eHRSS**
- ☐ **Enforcing the necessary safeguards to uphold the protection of the data privacy of patients and system security as a paramount priority**

Patients' Rights

Consent
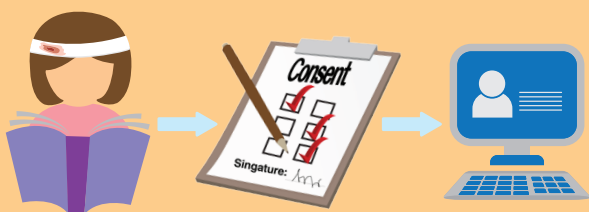
Right to Request for Data Access and Correction

- ☐ **Patients have rights of access to and correction of their personal data**
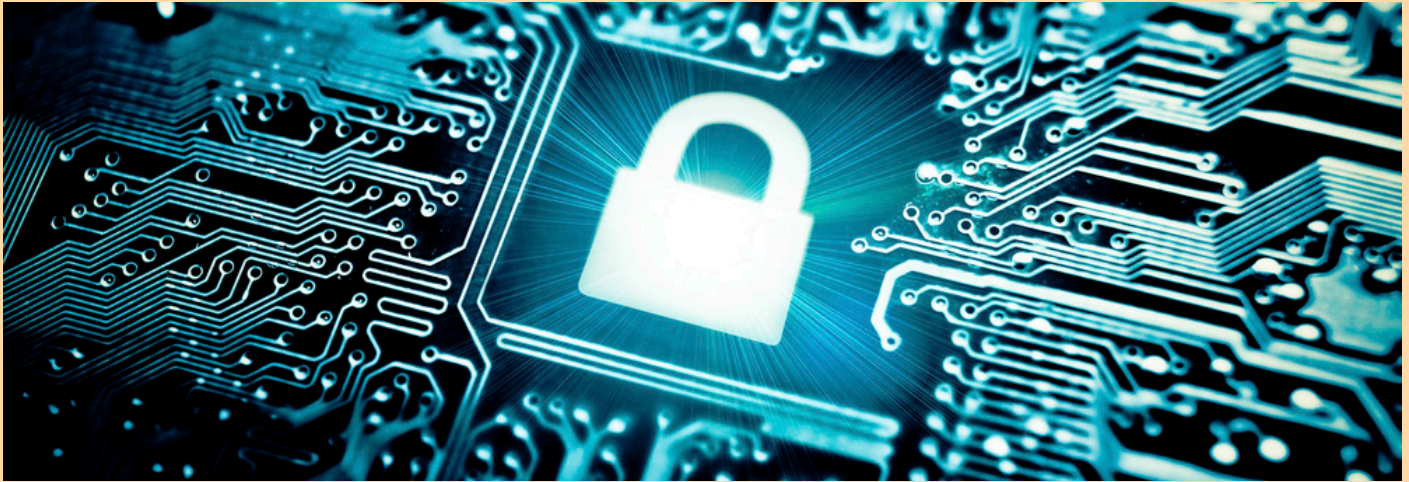

Patient Information Notice

Issuance of Patient Information Notice

- ☐ **Provide the Patient Information Notice to patients upon their registration in eHRSS**
- ☐ **The notice sets out the rights of patients, privacy and security safeguards, withdrawal arrangement, etc.**

Learn More About eHRSS
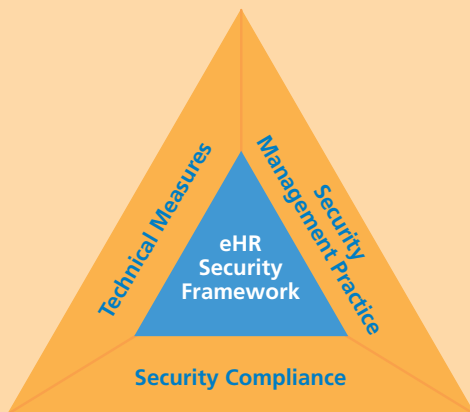
System Security – Paramount Importance at eHRSS

Safeguard of eHR data

The Government placed paramount importance on system security during the development of the Electronic Health Record Sharing System (eHRSS). In view of the recognised sensitive nature of eHR, security policies and control procedures have been devised in conjunction with deployment of the latest technologies to safeguard system security and minimise risk of personal health data leakage.

Formulation of eHR Security Framework

To achieve the goal of "Building Security In", we have formulated eHR Security Framework in the System and devised recommendations on technical measures, security management practices and security compliance framework, which have been put in place for protecting eHR data.

Authentication of Patients

Accurate attribution of patient's health data for information security is important in ensuring the data safety in the eHRSS. Same as existing clinical practices, the eHRSS would identify and authenticate individual patient by means of his/ her personal particulars, including identification document number, English name, date of birth and sex (so called "four major keys"). A healthcare provider may only upload a patient's health data when these major keys are all matched.
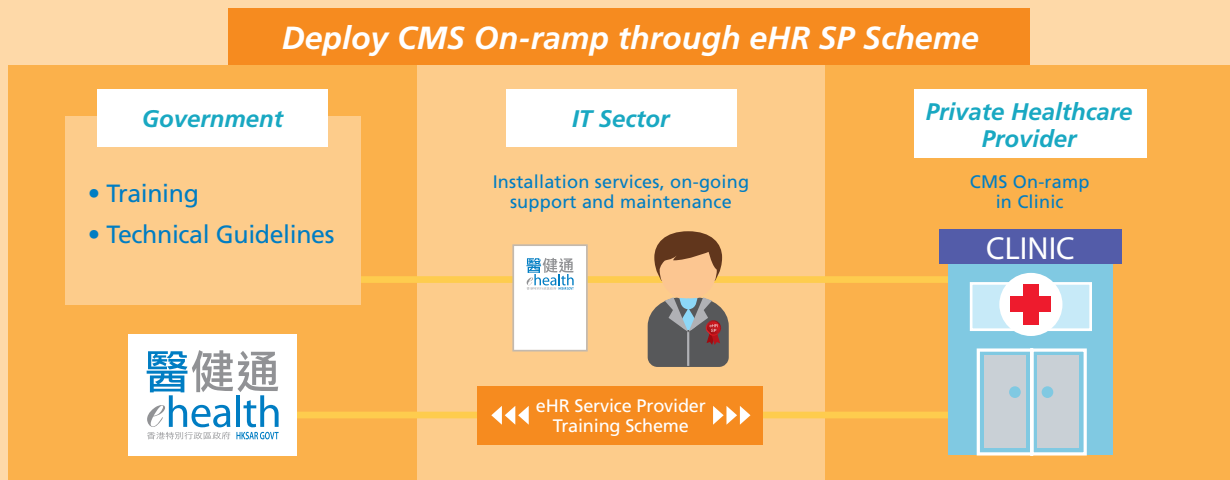
Four Major Identification Keys

ID Number   Date of Birth   English Name   Sex

To be in line with the "need-to-know" of eHR sharing and other statutory requirements from the Office of the Privacy Commissioner for Personal Data ("PCPD"), we strictly control the access to health records by adopting stringent security measures used in major information technology systems.

To know more about the security measures in the eHRSS, please keep an eye on the upcoming issues of eHealth News.

Release of Clinical Management System On-ramp

Deploy CMS On-ramp through eHR SP Scheme

Government	IT Sector	Private Healthcare Provider
• Training • Technical Guidelines	Installation services, on-going support and maintenance	CMS On-ramp in Clinic
醫健通 ehealth	醫健通 ehealth ◄◄◄ eHR Service Provider Training Scheme ►►►	CLINIC

Clinical Management System (CMS) On-ramp standalone version is now available free of charge for private healthcare providers (HCPs) in Hong Kong.

What is CMS On-ramp?

CMS On-ramp provides functions which suit clinics' daily operations and workflows, including appointments, consultation records, dispensary, billing, inventory and reporting. It enables sharing of patients' clinical data with the future Electronic Health Record Sharing System (eHRSS). As eHRSS is planned to be launched in 2015 after enactment of the eHRSS Bill, the current standalone version has not enabled with eHRSS connectivity functions.

How to obtain CMS On-ramp?

A number of information technology vendors have been trained to become eHR Service Providers (SPs) in providing end-user support services to HCPs on the installation and maintenance of CMS On-ramp. HCPs may obtain CMS On-ramp by hiring the services of eHR SPs, whose contact details are listed at the *eHR Office website*. The eHR SP Scheme is a training but not a registration scheme, any service agreement will be directly agreed between HCP and the relevant eHR SP.

HIMSS AsiaPac14 – Digital Healthcare Week

HIMSS AsiaPac14
DIGITAL HEALTHCARE WEEK

Healthcare Information and Management Systems Society (HIMSS) AsiaPac14 - Digital Healthcare Week, a major annual healthcare information technology (IT) conference, was held in Singapore from 15 to 18 September 2014.

Mr Sidney Chan (Head of eHealth Record Office) and Dr Antonio Sek (Chief Manager (eHR) of Hospital Authority) were invited to deliver a talk on "Development of the eHR Sharing System in Hong Kong" in this world-renowned conference. From their presentation, the audience learnt the latest development of eHR Programme in Hong Kong.

Mr Sidney Chan presented in HIMSS AsiaPac14 – Digital Healthcare Week.

Game Zone, Chance to Win a Prize!

Test your knowledge about the eHR with the following Word Search game. Find and circle all the words hidden inside the box. Readers who get all 3 words correct can win a prize, while stock lasts. Enjoy the fun of exploring eHR!

Join the game and fax the completed form to 2300 7921 or email to *eHR@fhb.gov.hk* on or before 18 January 2015. The deadline for submission is over. The correct answers are indicated as below.

New Era of eHealth

```
D   J   J   C   I   P   S   C
V   J   E   O   C   F   W   O
X   M   W   M   T   I   B   N
T   N   C   P   P   R   P   S
N   P   T   U   F   P   X   E
D   O   C   T   O   R   U   N
V   Q   O   E   C   K   J   T
X   B   J   R   P   C   V   E
```

Word Placement: Forward words only. The words may be placed horizontally, vertically, or diagonally.

🔍 COMPUTER   🔍 CONSENT   🔍 DOCTOR

Please provide your name, contact information, and postal address. Winners will be notified through email and the prize will be mailed to the postal address provided below.

Name: _____

Tel No.: _____ Email: _____

Postal Address: _____

After the closing date on 18 January 2015, you can check the correct answers in the newsletter posted at the *eHR Office website*. The personal particulars and contact information collected in this game zone will only be used to notify and send prizes to the winners. All personal data collected from this game zone will not be disclosed to any third parties and will be deleted by the eHR Office two weeks after all prizes have been sent.