

Electronic Health Record Sharing System in Hong Kong

Introduction

The Electronic Health Record Sharing System (eHRSS) is a Hong-Kong government-led, non-compulsory program launched in March 2016 for the sharing of health records of citizens in both public and private healthcare sectors in Hong Kong. The centralized repository contains details of the patient's drug reactions, diagnosis, procedures, medications, immunisation etc. and is stored and shared across the health care providers with the patient's consent.

Key Stakeholders



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- GovHK
- Food and Health Bureau
- Department of Health
- Hospital Authority
- Office of the Government Chief Information Officer
- Office of the Privacy Commissioner for Personal Data



Beneficiaries

- Citizens of Hong-Kong
- Healthcare Providers

Implementation of the Practice

- The first stage of the eHR program was implemented from 2009 to 2015 as a sharing pilot called "Electronic Patient Record". In March 2016 eHRSS was launched.
- The data privacy and security of the eHRSS was given legal protection.
- An information infrastructure is provided for the healthcare providers via the eHRSS. With the consent of patients, the records can be retrieved by healthcare professionals.
- In stage one of eHRSS, they developed eHR sharing platform core infrastructure, the CMS Adaptation modules (CMS Adaptation modules are modules developed to facilitate private hospitals to connect to and interface with the eHRSS) and CMS On-ramp application (CMS On-ramp is a clinical management software with sharing capability developed under the eHR Programme. It is a turn-key system readily usable by private clinics.), as well as the standardisation and interfacing component

Results of the practice

eHRSS has helped promote public-private collaboration, facilitate the continuity of care and improve the quality and cost-effectiveness of healthcare services. According to the Hospital Authority (2018), more than 485,000 patients and 3,500 private healthcare professionals were enrolled in the PPI-ePR pilot up to January 2016.

Lessons learnt

The predominant challenges faced on the development of eHR are concerns over data privacy and cybersecurity of the database. As health-related data is highly personal and sensitive, patients generally wish to keep such data sharing on a need-to-know basis. To address this issue, following measures were introduced under PPI-ePR:

- Electronic Health Record Sharing System Ordinance became effective from 2 December 2015 for the establishment of the eHRSS. It provides a legal base to protect the system, data as well

as information (Privacy Commissioner for Personal Data, 2018).

- There are two options for voluntary registration- indefinite sharing consent and one-year sharing consent for patients. Consent is valid until revocation by the patient's registration is being withdrawn or cancelled.
- Only patients' data which are within the scope of sharable eHRs will be uploaded to the system and accessed by clinicians on a need-to-know basis.
- Some members have proposed the inclusion of a "safe deposit box" containing sensitive data in the system, in which patients can have control over access to data put in the box. While claiming that such functions might undermine the comprehensiveness of eHRSS, the Government is now exploring the feasibility of the proposal in the enhancement of eHRSS.

Conclusion

With the increasing ageing population and rising NCD burden in India, information systems like eHRSS will help in devising future health policies for the nation. Implementing electronic health records will further help in streamlining the referral and follow up processes in the country with strong gatekeeping.

Further reading

- i. https://www.ehealth.gov.hk/en/publicity_promotion/ehealth_news_09/the_new_world_of_healthcare.html
- ii. <https://www.legco.gov.hk/yr18-19/english/panels/hs/papers/hs20190520cb2-1432-3-e.pdf>
- iii. <https://www.legco.gov.hk/research-publications/english/essentials-1718ise09-electronic-health-record-sharing-system.htm>