Patient Management System

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Prof. John Ryu was the Commissioner of HIRA International Group at Korea Health Insurance Review and Assessment Service (HIRA), a quasi-Korean government agency with its state-of-the-art ICT operational infrastructure conducts 1.5 billion medical insurance claims review and quality assessment procedures annually for 51.5 million Korean citizens over entire 91,000 medical service providers.

As an internationally well-recognized lecturer and practitioner on Strategic Purchasing and Digitalized National Health Insurance Management, the Commissioner Ryu found HIRA Global UHC Campus Program (HGUC) in 2016 that HGUC offers training and consultation programs on many pivotal health insurance management subjects to over 30 nations in the past 5 years. The vision of HGUC is to share technical knowledge, effective policy building strategies and procedures, globally innovative strategic purchasing methods, and hands-on data management and utilization know-hows.

Also, as HIRA’s Global UHC envoy and a global UHC expert, Commissioner Ryu has worked extensively with over 20 nations’ Ministry of Health to provide long-term and mid-term technical consultation projects in capacity building for national health insurance management teams and design strategic purchasing programs including China, India, Vietnam, Malaysia, Cambodia, Peru, Colombia, Philippines, Ghana, and Kingdom of Bahrain, and etc. In addition, he has been chosen in many years by the World Bank, WHO, Inter-American Development Bank, Asian Development Bank, and Bill & Melinda Gates Foundation to be the primary instructor /investigator and Executive Project Manager of many international consultation and capacity building projects.

Commissioner Ryu was also the Executive Project Manager of Kingdom of Bahrain’s ICT based national health insurance system building project, total project budget including maintenance and enhancement works is about USD 35 M, created by the partnership between Bahrain’s Supreme Council of Health and Korea’s HIRA.
E-Government System of Korea Regarding Infections Diseases

Integration of 7 activities

1. Monitoring of patients
2. Monitoring of pathogen & medium
3. Diagnosis of pathogens
4. Epidemiological investigation
5. Vaccination
6. Management patients and people having contact with them
7. Quarantine Management

To Do List & Dashboards of “Integrated Information Support System for Infections disease management”

* (Inter-Ministry)
E-Government System of Korea Regarding Infections Diseases

COVID-19 Response Case by Risk Alert Level and Related Information

Source: NIA National Information Society Agency (2020), Korean ICT services against COVID-19 pandemic p.15
ITS / DUR Software Service Process

1. Entrant Information (3 times a day)
   - Entrant name, resident registration no., data expiration date

2. Entrant Information

3. Information Check at Reception, Examination, Prescription Stages
   - Stages of Treatment

4. Report when showing symptoms
   - Confirmation of Infectious Disease Outbreak

5. Inpatient Information

6. Information on Entrant’s Visit to Medical Care Institution (once a day)
   - KCDC

Source: Korea Centers for Disease Control and Prevention
System Process

COVID-19 Epidemiological Investigation System

1. Infection confirmed
2. Request for information
3. Request for authorization
4. Authorization
5. Request for information (SMS)
6. Provide information on confirmed patient

Source: NIA National Information Society Agency (2020), Korean ICT services against COVID-19 pandemic p.75
Epidemiological Investigation Support Flowchart

Self-Quarantine Safety Protection App Service

- **Users** (people under self-quarantine):
  - Basic personal information
  - Health check information
  - Safety guidelines
  - Case officer contact information

- **Assigned government case officers**:
  - Basic personal information
  - Self-health check result (if any symptom, take necessary measures)
  - User status change (released from quarantine, hospital transfer)

Alert (out of quarantine area)
Call (when necessary)

Negative Pressure Isolation Room Information System Process

Medical institutions

Submit the status report of negative pressure isolation room

Submit the status report of negative pressure isolation room

Monitor the negative pressure isolation room

Institutions responsible for monitoring

Ministry of Health and Welfare
National medical center
17 provinces and cities

Thank you very much!!

Be Healthy! & Be Safe! & Be Happy!