

「牙醫診所電子病歷系統」
香港牙醫學會



Dr Johnny Wong
Chairman, IT Committee of Hong Kong Dental Association

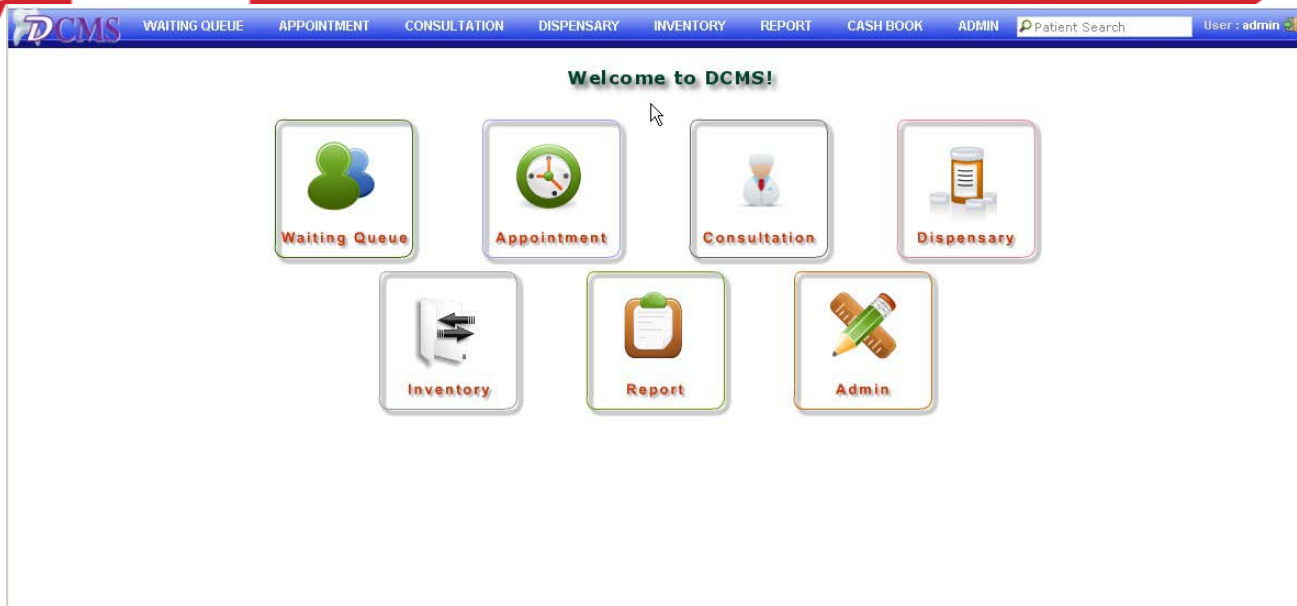
About HKDA

Hong Kong Dental Association was founded in 1950, formerly known as Hong Kong Dental Society. It has a membership of over 1,700 members, representing around 90% of the registered dentists in Hong Kong. It is one of the founder-member associations of the Asia Pacific Dental Federation and a member of the FDI World Dental Federation.

About HKDA

The Association has been recognized as a representative of the dental profession by the Government, which has consulted the Association on matters related to dental policies. In the early days when dentistry was not yet fully developed in Hong Kong, the Association even gave dental development recommendations to the Government proactively such as water fluoridation scheme, set up of a dental school in Hong Kong and a training school for dental hygienists, etc.

The HKDA DCMS Overview



- Patient Record
- Appointment
- Waiting Queue
- Cash Book
- Consultation
- Charting
- Procedure
- Prescription
- Dispensary
- Inventory
- Reporting
- Billing

HKDA DCMS

- Free, open-source, scalable, extensible
- Advanced **client-server** architecture, supporting multi-doctor and poly-clinic environments.
- Designed to support information **sharing** and **exchange**.
- **Standards** driven: data format, diagnostic codes, drug references, address formats.
- Future **integration** with eHR and other healthcare services, e.g., healthcare voucher

HKDA DCMS



- Developed by Mobigator in the last two years with collaboration with dentists and other IT vendors.
- Released in Oct 2010.
- Mobigator
 - 15 years of experience and expertise in healthcare, in US, Europe and Asia.
 - Developer of CMS3, **DCMS**, HIS, etc.
 - Certified by HKDA to provide support services for clinics.

HKDA DCMS

- Total of 301 dentists were trained via lectures/workshops and onsite hands-on technical training.
- By the end of July 2011, a total of 153 dentists have installed DCMS.

Integration with eHealth Services

- You don't need to re-type the data as everything already in DCMS.
- Faster data collection as it take less time for you to prepare and submit the form.
- Services included in DCMS by 2011
 - Healthcare Voucher

Selection of DCMS (I)

- **Functionality**
 - Do the features covered what I needed?
 - Does the DCMS reduce my workload?
 - Does the DCMS fit into my clinic workflow?
- **Ease of Use**
 - Do I need to train my nurse to use it?
 - Are the features easy to find and use?
- **Cost**
 - How much is the DCMS?

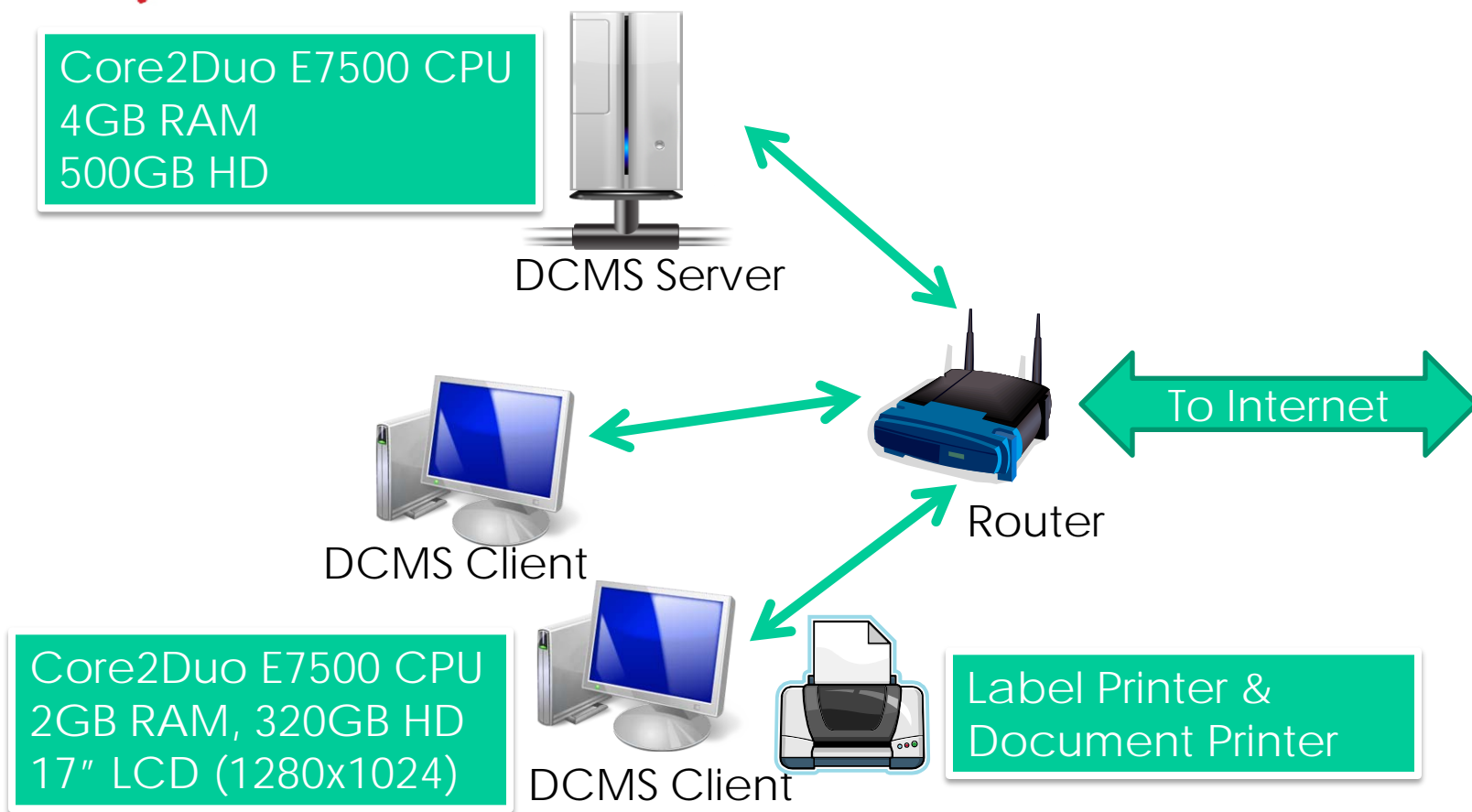
Selection of DCMS (II)

- Maintenance & Support
 - Can I do the maintenance by myself?
 - Is it difficult to find support on the system?
- Extension
 - Does my software has future extension?
 - What can I do if I want an extra function?
- Security
 - Is the system secure enough?
 - Are the data encrypted?

DCMS 1.1 Installation Preparation

- Security
 - Is my system secure?
 - What can I do to make my system more secure?
- Backup
 - What kind of backup solution should I consider?
- Clinic workflow
 - Does DCMS 1.1 suit my clinic?
 - Do I need to change my current workflow?
- Support
 - Should I join a service plan?
 - Where can I find support resources?

Setup Example

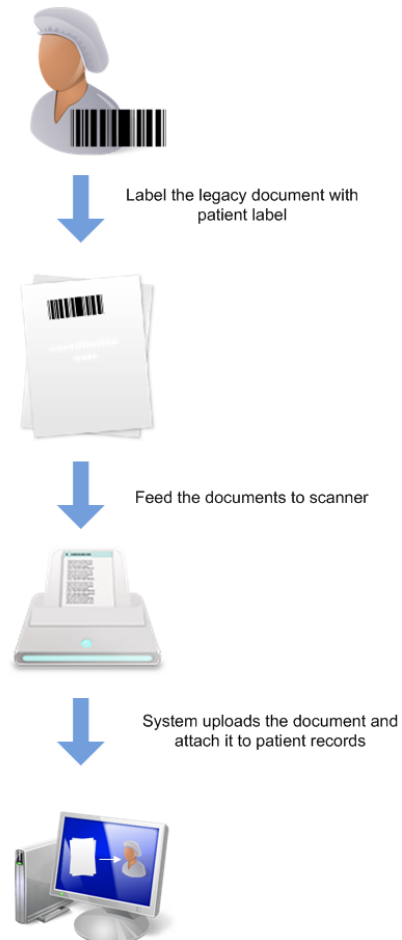


Data Migration

- Data from legacy system can be migrated to DCMS.
- For legacy systems with well-structured data (e.g. a database), we can migrate the data from the legacy system.
- Or if you can prepare your data in a standard Excel file.
- Please note that data migration is not a free services.

Migration of Legacy Paper Records

1. Capture only the patient demographics in DCMS (e.g. use the Excel template)
2. Capture images of the paper records:
 - Scan the paper records and attach them to patient records in DCMS.



System & Network Security

- System is as secure as the weakest link.
- System security: Your operating system has to be secured.
 - Disable guest and default accounts;
 - Use strong password;
 - Change your password often;
 - Don't Postit your password next to the computer;
 - Remove unnecessary applications.
- Network Security:
 - Use a firewall if possible
 - Don't install P2P applications
- We can help you to review your system and network configuration.

Data Security

A red ECG (heart rate) line graphic that starts on the left, has a small peak, then a larger peak, followed by a dip and another small peak. It then continues as a flat line across the middle of the slide, and finally has another small peak and a larger peak before ending on the right.

- If you want to enhance data protection, you can choose to encrypt all your data by:
 - Linux dm-crypt
 - TrueCrypt

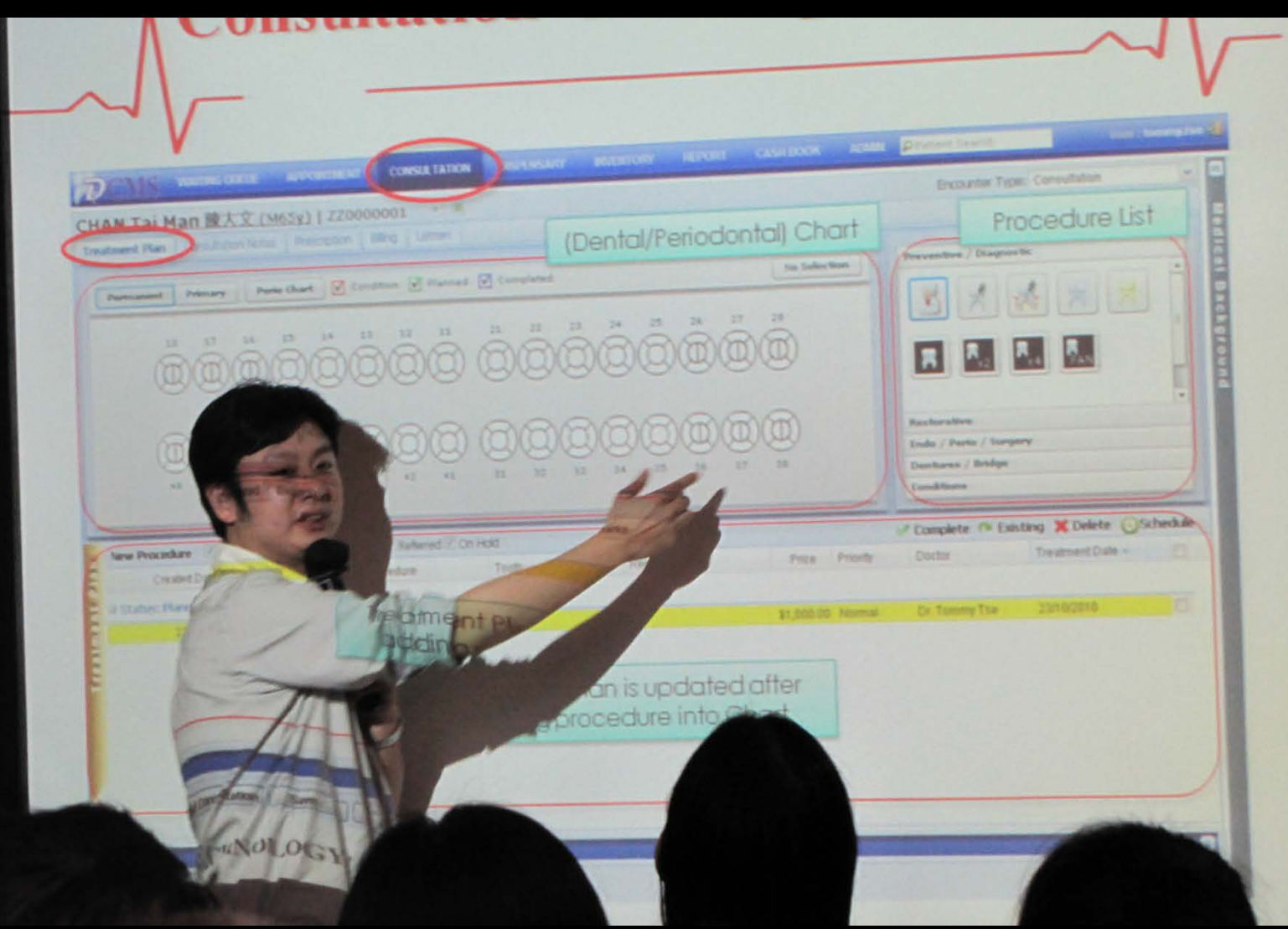
Backup

- DCMS can backup all your data into an encrypted file.
- Store the backup file to external device (e.g. NAS), in case your hard disk crashes.
- Keep an offsite copy in case there is a problem at the clinic.
 - E.g. Burn a DVD every week and place it in another place, not in your clinic.
- Upload your file to an online storage
 - Find a reliable service provider
- We will discuss more on this topic in lesson 2.









CHAN Tai Man 陳太文 (M65y) | ZZ0000001

Treatment Plan

CONSULTATION

(Dental/Periodontal) Chart

Procedure List

Permanent Primary Period Chart Condition Planned Completed



Preventive / Diagnostic

Restorative

Endo / Perio / Surgery

Dentures / Bridge

Conditions

| New Procedure | | | | Complete | Existing | Delete | Schedule |
|---------------|-----------------------|------------|----------|---------------|----------------|--------|----------|
| Created Date | Procedure | Price | Priority | Doctor | Treatment Date | | |
| 2010/02/10 | Treatment plan adding | \$1,000.00 | Normal | Dr. Tommy Tse | 2010/02/10 | | |

Treatment plan is updated after adding procedure into Chart

DCMS Outreach

- Government Pilot Project on Outreach Primary Dental Care Services for Elderly in Residential Care Homes and Day Care Centres
- 14 NGOs & Dental Service of Department of Health
- Sponsor Funding by Food & Health Bureau
- The project managed by Hong Kong Dental Association
- Mobigator Technology Group – as Project Developer/Implementor
- 3 Years, Starting from March 2011
- Customised DCMS as Platform for Recording Data of Dental Examination, Treatment Planning, Consent and Other Record Keeping

DCMS Outreach Project Architecture







eHealth Record (eHR) - Better Healthcare Services

- Most Accurate - No Loss/Human Error due to Copying/Interpreting
- Most Timely - Instant Results Update
- Higher Accessibility - Multi Copies/Distributions Possible
- More Secure - Authentication and Password Control
- Safe - Accessible in Different Places
- Improved - Digitization, Enhancement, Alert, Timely
- Save - Less Space to Keep Record

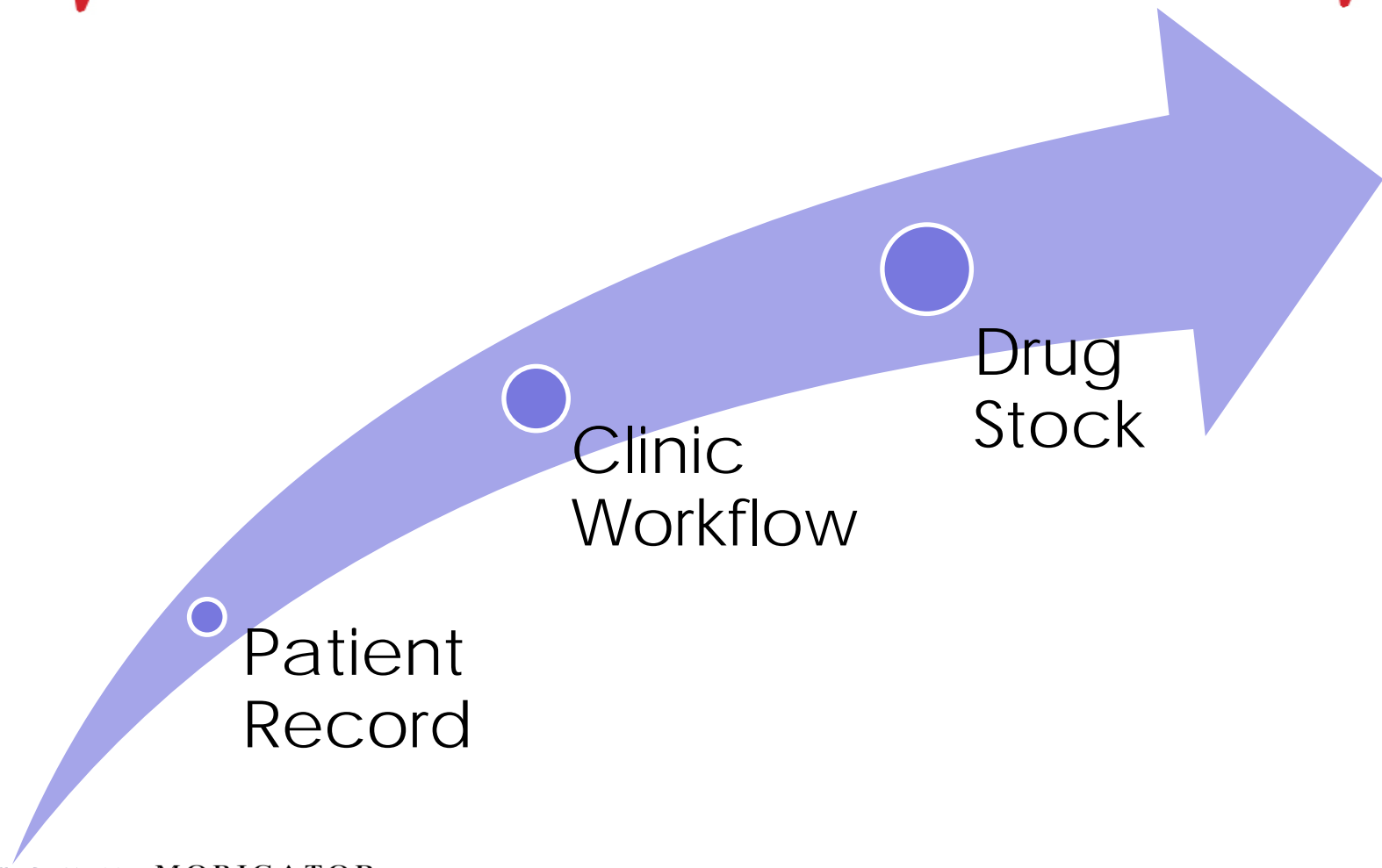
The HKDA DCMS Club (I)

- Learn about healthcare informatics and DCMS
- Priority in joining the free DCMS Professional Training Course in Clinics Computerization.
- Free technical advice and support in the deployment of the HKDA DCMS.
- Free technical support.
- Free support in upgrading to new version of DCMS during 2011.

The HKDA DCMS Club (II)

- Free access to valuable online resources and latest updates of DCMS.
- Participation in online forums with other DCMS users.
- Discount on the purchase of computer hardware, software and other IT services.
- The service hours are
 - Telephone support: Monday to Saturday 10am to 8pm (excluding public holiday)
 - Onsite services: Monday to Friday 10 am to 8pm, and Saturday 10am to 2pm (excluding public holiday)
 - The turnaround time is next business day (Mon – Sat)

Computerization Path



HKDA Council Member

President

Dr. Leung Sai Man, Sigmund

Vice-President

Dr. Wong Chi Wai

Honorary Treasurer

Dr. Leung Fun Shing, Vincent

Honorary Secretary

Dr. Yung Yu Ki, Alfred

Council Member

Dr. Foo Tai Chuen

Dr. Lau Kin Kwan, Kenny

Dr. Liu Wai Ming, Haston

Dr. Liu Wing Hong

Dr. Ng Pong Yin, Robert



Thank You

A red ECG line graphic that frames the text 'Thank You'. The line starts with a small peak, followed by a larger peak, then a sharp dip and another peak. It then continues as a flat line across the middle, and finally mirrors the initial pattern with a sharp dip and a peak before ending.