K&T DHC Induction Course
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PRINCIPLES OF PRIMARY HEALTHCARE

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PRESENTATION OUTLINE

• Core Values of Primary Healthcare (PHC)
• PHC Principles of
  • Health for all
  • Preventive care
  • Person-centred care
  • Multi-disciplinary care
• **Primary healthcare** is the essential health care made universally available to individuals and families, which includes public health & self-care (WHO 1978)

• **Primary care** is the first point of contact of the professional health care system. (AAFP 2009) - family doctors, specialists, CMP, A&E, other health professionals
VALUE OF PHC - POPULATION

- Health systems with strong primary healthcare are most cost-effective
- Primary care provided by family doctors/ GPs are most cost-effective\(^1\)
- A higher supply of GP/FP, but not other primary care doctors, was associated with
  - More equity of care\(^2\)
  - lower mortality rates\(^2,3\)
  - higher early cancer detection rates\(^4,5\)

Having a Family Doctor in HK

- **Better outcomes of consultations**
  - Patient enablement
  - Person-centered care addressing concerns & expectations
  - Preventive care (healthy life style, screening)
  - Recommendation of doctor to family & friends

- **More effective gate-keeping**
  - Fewer A&E visits
  - Fewer hospital admissions
  - More likely to consult the usual doctor

CORE VALUES OF PHC - DECLARATION OF ALMA-ATA

Primary Health Care

- is the key to health for all
- should be universally accessible
- addresses the main health problems
- promotes self-reliance
- should be sustained by a mutually supportive referral system
- requires multi-professional teamwork

WHO/UNICEF International Conference on PHC, The Lenin Place, Alma Ata, USSR. 6-12 September, 1978
CORE VALUES OF PHC - WHO WORLD HEALTH REPORT 2008

Four reforms to translate “health for all” from aspiration to implementation

1. Universal coverage: ↓ service gaps & fees
2. Service delivery: comprehensive & skilled
3. Public policy: financing & resources
4. Leadership: collaborative & strategic
CORE VALUES OF PHC - ASTANA DECLARATION, WHO 2018

- **Governments and societies** that prioritize, promote and protect people’s health … through strong health systems;

- **PHC & health services** that are high quality, safe, comprehensive, integrated, accessible, available and affordable … by health professionals who are well-trained…;

- **Enabling and health-conducive environments** in which individuals and communities are empowered …;

- **Partners and stakeholders** aligned in providing effective support to national health policies, strategies & plans.
SCOPE OF PRIMARY HEALTHCARE

- Care for all & at all times: care continuum from health to sickness
- Preventive care: case finding to address the main health problems & target the at-risk
- Person-centred care: bio-psycho-social needs, enable & empower self-reliance
- Multi-disciplinary care: integrative, high quality, safe, comprehensive & collaborative
71 year-old divorced retired waitress living with her son; health screening found:

TC 8.1, HDL 1.9, LDL 5.53, TG 1.5 mol/L; TC/ HDL = 4.3

She was asymptomatic and had no past or family history of HT/DM/CVD. She does not smoke and her BP was 120/80

10 year CVD risk = 11.4%
MANAGEMENT OF MADAM IP

• She was advised on diet and exercise
• Her son supervised her diet closely
• Her weight decreased from 49 to 45 Kg in 3 months.

Video: Let’s hear Madam Ip
CARE FOR ALL

Care continuum to meet the changing needs from health to sickness

- Asymptomatic → Prevention & screening
- Symptomatic → Accurate diagnosis
- Diagnosis → Appropriate effective management
- Chronic illness → Monitor coping, control, prevent complications & optimize management
- Multi-morbidity → Prioritize, co-ordinate & integrate
- Complications → Rehabilitation, support & care
CONTINUITY OF CARE – PERSONAL & SYSTEM

Build up a mutual trusting relationship

- Personal family doctor & PC home
- Accumulate medical & personal Hx
- Communicate effectively
- Improve diagnostic precision
- Enhance management adherence
- Use time as a diagnostic & therapeutic tool
- Co-ordinate & facilitate care of multiple illnesses and disciplines
PREVENTIVE CARE

- Informed choice
- Joint decision making
- Empower & enable change
- Engage the right person at the right time & context
- Consistent & persistent information
- Evidence-based

Miller’s Pyramid

practice

Able

Know how

Know what
PRINCIPLES OF SCREENING

1. Should be an important health problem
2. An accepted treatment, which makes a difference to the outcome
3. Facilities for diagnosis & treatment should be available & accessible
4. A recognizable latent or early symptomatic stage
5. A suitable (and accurate) test or examination
6. Test should be available & acceptable to the population
7. The natural history from latent to disease should be understood
8. An agreed policy on whom to treat as patients
9. The cost (& potential harm) of case-finding balanced against benefit
10. Case-finding should be a continuing process
THE ARROGANCE OF SCREENING
(SACKETT D.L. CMAJ 2002; 167:363-4)

- Aggressively assertive
  - Target the asymptomatic
  - Turn the ‘well’ to the ‘ill’
- Presumptuous
  - Intervention is beneficial
  - Benefit is more than harm
- Overbearing
  - Critical of those who don’t conform
- Expensive

FIRST DO NO HARM
“It is more important to know what sort of person has a disease than what disease a person has.”

Hippocrates (460-377 BC)
Bio-psycho-social Diagnosis

• **Biology**: physiological constitution, health risk, illness, co-morbidity

• **Psychology**: beliefs, perspective, expectations, feelings, fears, suffering

• **Social**: culture, experience, norm, family function & dynamics, peers, work, role functioning, ADL

• **R.I.C.E.**: Meaning of health & illness to the patient /family
  - Reason for consultation/ no consultation
  - ideas, concerns & expectations (I.C.E.)
Patient-centred Management

- Self-reliance & control (empowerment)
- Individualized benefit to harm ratio
- Address the R.I.C.E. of patient & family
- Respect patient autonomy with informed choice & joint decision making
- Acceptability & feasibility
- Side effects & impact on patient/family
- Outcomes of health & quality of life
RISK ASSESSMENT & MANAGEMENT (RAMP-DM)

Follow up pathway

<table>
<thead>
<tr>
<th>Low Risk</th>
<th>Medium Risk</th>
<th>High Risk</th>
<th>Very High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 7.0%</td>
<td>GOPC Dr</td>
<td>GOPC Dr</td>
<td>GOPC Dr + Case Manager</td>
</tr>
<tr>
<td>7.0-8.4%</td>
<td>GOPC Dr ± Case Manager</td>
<td>GOPC Dr ± Case Manager</td>
<td>GOPC Dr ± Case Manager</td>
</tr>
<tr>
<td>≥ 8.5%</td>
<td>GOPC Dr + Case Manager</td>
<td>GOPC Dr + Case Manager</td>
<td>RAMP Dr + Case Manager</td>
</tr>
</tbody>
</table>

*Refer to detailed referral guideline in Manual

Patient Empowerment Program
- Offer to all patients

Dietitian (if applicable)
- New patient
- Special dietary needs (e.g., vegetarian, ethnic minorities, fluid diet, shift work)
- e.g., BMI ≥ 27.5 kg/m² for weight reduction
- Poor dietary control despite nurse’s intervention

Podiatrist (if applicable)
- Foot ulcer, corn, callus
- Foot, toe or nail deformities, in-growing toe nail
- Absent peripheral pulse
- Abnormal VPT or Monofilament test

Physiotherapist (if applicable)
- BMI ≥ 27.5 kg/m² intend to join weight reduction programme

SCCC
- Smoker intend to quit

Wound Clinic
- Wound need assessment apart from simple dressing

Ophthalmologist
- Referred by doctor according to DMR grading and referral logistics

<table>
<thead>
<tr>
<th>Observed Events in 5 y 2009-2013</th>
<th>ARR (RAMP-DM Vs. Usual Care)</th>
<th>NNT</th>
<th>HR†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any complications</td>
<td>‡ -13.05%</td>
<td>8</td>
<td>0.597*</td>
</tr>
<tr>
<td>CVD</td>
<td>‡ -11.64%</td>
<td>9</td>
<td>0.509*</td>
</tr>
<tr>
<td>CHD</td>
<td>‡ -7.78%</td>
<td>16</td>
<td>0.448*</td>
</tr>
<tr>
<td>Heart Failure</td>
<td>‡ -4.69%</td>
<td>21</td>
<td>0.442*</td>
</tr>
<tr>
<td>Stroke</td>
<td>‡ -3.29%</td>
<td>30</td>
<td>0.641*</td>
</tr>
<tr>
<td>ESRD</td>
<td>‡ -0.77%</td>
<td>130</td>
<td>0.444*</td>
</tr>
<tr>
<td>STDR</td>
<td>‡ -1.41%</td>
<td>71</td>
<td>0.496*</td>
</tr>
<tr>
<td>All-cause mortality</td>
<td>‡ -13.39%</td>
<td>7</td>
<td>0.438*</td>
</tr>
</tbody>
</table>

ARR: Absolute risk reduction; NNT: Number Needed to Treat; 8,570 RAMP-DM subjects and 8,570 usual care subjects were matched by propensity score. † HR Hazard ratio < 1 indicates risk reduction for events compared to usual care group, by Cox regression adjusted for socio-demographic and clinical characteristics. * Significant differences p<0.05 compared to usual care group.
## Cost per DM subject (HKD)

<table>
<thead>
<tr>
<th>Public Service</th>
<th>RAMP-DM (N=8570)</th>
<th>Usual care (N=8570)</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAMP-DM set-up cost (mean)</td>
<td>41</td>
<td>N.A.</td>
<td>41</td>
</tr>
<tr>
<td>RAMP-DM administrative cost</td>
<td>5</td>
<td>N.A.</td>
<td>5</td>
</tr>
<tr>
<td>RAMP-DM ongoing cost over 5y</td>
<td>1,222</td>
<td>N.A.</td>
<td>1,222</td>
</tr>
<tr>
<td>Public health care cost over 5y</td>
<td>94,461</td>
<td>152,573</td>
<td>-58,112</td>
</tr>
<tr>
<td>Total costs over 5 years</td>
<td>95,725</td>
<td>152,573</td>
<td>-56,848</td>
</tr>
</tbody>
</table>

Projected to 62,940 uncomplicated DM patients enrolled to RAMP 2009 – 2011: HA saved 3.5 billion & reduced 8,991 deaths & 7,867 DM complications from 2011-2015
MULTI-DISCIPLINARY RAMP

- Risk, disease or complication diagnosis
- Individualized counselling & interventions based on need
- Enhanced health / disease control
MULTI-DISCIPLINARY PHC

- Not every person needs multi-disciplinary care
- A person may need multi-disciplinary care only some of the times
- The key to success is individualized, prioritized & integrated care
- Beware of the burden of care on the patient
- Beware of fragmentation/compartmentalization of care

MORE IS NOT ALWAYS BETTER
INTEGRATIVE PRIMARY HEALTHCARE

2nd/3rd care

Family

Patient

Multi-disciplinary DCH

Investigation services

Other Health professionals

2nd/3rd care

Health policy & admin.

EB Reference frameworks

Community & social services

Health information system

Training CME/CPD & Research
Patient-centred
(what sort of person, illness, co-morbidity & social context)

Care for all
(continuity to meet changing needs)

Preventive care
(first do no harm, empowerment & enablement)

Multi-disciplinary
(more is not better, Individualized, Integrative, FD linked)
“The flapping of the wings of a distant butterfly can influence the occurrence of a tornado....”

Edward Lorenz (1917-2008)