Egyptian Specialized Hypertension Clinics

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<table>
<thead>
<tr>
<th>Region</th>
<th>Prevalence 2000, Millions</th>
<th>Predicted Prevalence 2025, Millions</th>
<th>Increase, Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established market economies</td>
<td>239.5</td>
<td>309.7</td>
<td>70.2</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>114.3</td>
<td>200.6</td>
<td>86.3</td>
</tr>
<tr>
<td>Former socialist economies</td>
<td>93.1</td>
<td>103.7</td>
<td>10.6</td>
</tr>
<tr>
<td>Middle East crescent</td>
<td>73.8</td>
<td>152.6</td>
<td>78.8</td>
</tr>
<tr>
<td>China</td>
<td>181.6</td>
<td>299.2</td>
<td>117.6</td>
</tr>
<tr>
<td>India</td>
<td>118.2</td>
<td>213.5</td>
<td>95.3</td>
</tr>
<tr>
<td>Other Asia and islands</td>
<td>71.4</td>
<td>129.4</td>
<td>58.0</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>79.8</td>
<td>150.7</td>
<td>70.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>971.7</strong></td>
<td><strong>1559.4</strong></td>
<td><strong>587.7</strong></td>
</tr>
</tbody>
</table>

Adapted from Kearney et al with permission from Elsevier.

Perckovic et al. Hypertension 2007
Prevalence of HTN, 2014

The six regions of the World Health Organisation

HTN GLOBAL PREVALENCE 39%


Source: GBD 2010 via the Institute for Health Metrics and Evaluation
HTN in Egypt

Ibrahim et al, Hypertens 1995
• 24% prevalence of smoking and a growing use of shisha tobacco

• 66% of women overweight and 42% obese
• Almost three quarters of the population not involved in vigorous activity

• 17% prevalence of diabetes

• 40% prevalence of hypertension, average daily salt intake is 9 grams

http://www.worldlifeexpectancy.com
Why focusing on HTN?

- Common health problem
- Rates of awareness, treatment and control are low
- Main risk factor for heart disease, stroke and kidney failure
- Aging population
- Potential for prevention of complications

Why having specialized HTN clinics?

Why not?

- No specialized hypertension clinics in Egypt
- Limited information and training of Egyptian physicians
- Recent Egyptian guidelines
- Under and over-diagnosis of HTN will be avoided
Overdiagnosis problems

- Psychological impact
- Prescribing unnecessary medications
- Costs & side effects of medications
- Ordering unnecessary laboratory tests
- Financial burden on Egyptian health care system.

Under-diagnosis problems

- No treatment or follow-up for truly HTN Pts
- Risks of HTN complications
  - HF
  - Stroke
  - Renal failure
  - CAD
  - Aortic aneurysms
  - Aortic dissection
  - Arrhythmias
**Gains of specialized HTN clinics**

**Proper diagnosis of HTN**

- Correct diagnosis of HTN
- Define HTN severity
- Proper evaluation of hypertensive pts: clinical & laboratory
- Assess associated CVRFs
- Identify & manage co-morbid conditions: obesity, DM, OSA, CAD, PAD
- Diagnose TOD
  - LVH, proteinuria, RF, aortic aneurysms, carotid & vertebrobasilar dis

**Gains of specialized HTN clinics**

**Proper treatment of HTN**

- Initiate treatment at the right time
- Correct choice of initial drug treatment
- Patient education
- BP monitoring & follow-up
Gains of specialized HTN clinics

- Increase awareness of HTN

- Data collected from clinics will be the basis for new epidemiologic information
  - Prevalence of HTN
  - Patients demographic characteristics
  - Rates of awareness, treatment, control and adherence to therapy
  - Reasons for failure of BP control
  - Prevalence of hypertensive complications
  - Associated cardiovascular risk factors
  - Secondary HTN

Worldwide experience
HTN clinics worldwide

• Registered nutritionist: Specialized in diets reducing BP independent of medications

• Pharmacist: review medications interactions and side effects
HTN clinics worldwide

- Round the clock Hypertension emergency services
- Well-equipped ambulance offering basic and advanced life support systems

HTN clinics in Egypt
The beginning of Ideas……

WHL day  14/5/2014
اليوم العالمي لارتفاع ضغط الدم

Cardiology Department
Zagazig University

Joint EHS-Astra Zeneca Program
Process

University Hospitals
Recruitment of centers

<table>
<thead>
<tr>
<th>Site</th>
<th>Date of beginning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cairo</td>
<td>22/12/2014</td>
</tr>
<tr>
<td>2. Ain Shams</td>
<td>13/1/2015</td>
</tr>
<tr>
<td>3. Helwan</td>
<td>8/12/2014</td>
</tr>
<tr>
<td>4. Zagazig</td>
<td>11/1/2015</td>
</tr>
<tr>
<td>5. Alexandria</td>
<td>14/1/2015</td>
</tr>
<tr>
<td>6. Suez Canal</td>
<td>1/1/2015</td>
</tr>
<tr>
<td>8. Menia</td>
<td>18/1/2015</td>
</tr>
<tr>
<td>9. Assiut</td>
<td>18/1/2015</td>
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</tbody>
</table>

Requirements of the clinics

- **Personnel**: Physicians: trained and interested
  Nurses: committed and helpful

- **Machinery**: Digital BP measuring devices
  ABPM devices
  Scale and measuring tape
  Computers
  Internet access facility

- **Supervision**: Central office
  Regular auditory visits
Specialized clinics website

- 4500 pts
- 60% females
- Mean age: 50 yrs

MOH hospitals
Our Hope…

Thank You