NON-MEDICAL USE OF TRAMADOL IN EGYPT
The current situation and future challenges

Presented by:
Dr. Mahmoud Elhabiby
Associate Professor of Psychiatry – Ain shams University
Consultant of General Secretary Of Mental Health
Egypt
Objectives

• Sketch the specific problems with the non-medical use and illicit distribution in Egypt
• Describe key policies and practices related to health and law enforcement implemented to curb the problem in Egypt
• Present outcomes of aforementioned interventions
• Outline challenges
THE PROBLEM OF NON-MEDICAL USE OF TRAMADOL
Magnitude of the problem
Results of National surveys

Prevalence of Tramadol Dependence among adults
• There is a marked increase in the rate of Tramadol abusers and dependent subjects.
• According to the updates of the National survey in Egypt, the prevalence of Tramadol Dependence in 2015 among participants was 2.4% making Tramadol the second more prevalent substance of Dependence among Egyptians after Cannabis (Cannabis dependence prevalence 2.5%) with a slightly lower percentage. Moreover, the study shows that Tramadol is the most prevalent opioid that causes dependence with a significantly higher ratio than Heroin (Heroin Dependence Prevalence 0.3%).

(Source: National Drug Survey in Egypt, 2015 update)
Magnitude of the problem
Results of National surveys

Prevalence of Tramadol Dependence among adults

• In 2016, among 27,961 participants above 16 years old, the results showed the continuous occupation of Tramadol dependence as the second most prevalent substance of dependence (2.2%) after cannabis 2.5%.

• The national survey for addiction included also the prevalence of Tramadol abuse which is 3% which is also the second most prevalent substance of abuse after Cannabis 3.7%.

(Source: National Drug Survey in Egypt, 2016 update)
Magnitude of the problem
Results of National surveys

Prevalence of Tramadol Dependence among students and adolescents

- In a sample of 10,648 high school Egyptian students with age range 13-18, Tramadol was the 4th Substance to cause Dependence preceded by Cannabis, Benzodiazepines and Alcohol.

- In the same study, results reveal that Tramadol abuse represents 22.7% of students taking psychoactive substances.

(Source: Medspad Egypt 2017)
Drug detection campaigns among school bus drivers

- Among 9219 school bus drivers, tramadol abuse represented 69% among positive results (496 tramadol positive among 719 drug positive cases) rendering **Tramadol the most abused substance among School bus drivers.**

(Source: Official School Bus Drivers Survey, Egypt 2018)
Magnitude of the problem
Results of studies

Tramadol use among school students

• A study was aimed to estimate the prevalence and association of Tramadol use among school students in Egypt between the age 13-18 years. The prevalence of Tramadol use was 8.8% as proved by urine screen and average age at onset of use was 16+/- 1

Magnitude of the problem
Results of studies

**Tramadol Use among Egyptian University Students**

- In a Sample of 1135 University students
- Tramadol Use was **12.3%** among university students, males (20.2%) female students (2.4%).
- One fifth of these students started with Tramadol as their first drug.
- 15% of the users were using Tramadol alone
- About 60% of Tramadol users had drug-related problems and 30% had dependence.

*Source: Bassiony et al. Opioid Use Disorder attributed to Tramadol among Egyptian University Students, Journal of addiction Medicine in Press*
Treatment-seeking for Tramadol use

There is a marked increase in the number of tramadol dependent patients who seek treatment from Tramadol Dependence

- In Egypt, The National Drug Observatory recorded that Tramadol is the main substance of abuse in the patients seeking treatment from addiction.
- Since the Observatory has been established the treatment seeking population in Egypt named tramadol as their primary substance of abuse and the reason for treatment seeking behavior.
- In the same consensus, reports from the Addiction Treatment Hotline showed that in more than half of the callers (51.8%) ask about information and require help from Tramadol abuse.

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of patients complaining of tramadol as main substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>68.5%</td>
</tr>
<tr>
<td>2016</td>
<td>65%</td>
</tr>
<tr>
<td>2017</td>
<td>61%</td>
</tr>
</tbody>
</table>

Treatment-seeking for Tramadol use

Substance abuse and dependence among patients attending an emergency hospital in eastern Nile delta, Egypt.

- A cross sectional study was done in Mansoura University Emergency Hospital, Egypt to estimate the prevalence of drug abuse and dependence among patients attending the emergency hospitals. The results showed that Tramadol was the second most common drug abused after cannabis while it was the first one in the dependence group followed by cannabis in patients attending ER for various medical and surgical emergencies.

Source : Amr et al 2014 - J Psychiatry 2014;17:532-537
Tramadol-related deaths

• The formal reports of the *Clinical Toxicology Centre of Ain Shams University* indicated increasing in Tramadol related deaths in 2011 and the later years. Reports confirmed that in 2011, Tramadol was considered the first and the main reason of drug related deaths.

• Reports on Tramadol related deaths in Egypt show a gradual increase, which can be viewed as follows:
  • In 2010, Tramadol related deaths were as follows: 5 cases out of 691 were affected by Tramadol acute intoxication.
  • In 2011, 9 cases out of 1595 were affected by Tramadol acute intoxication.
  • In 2012, 14 cases out of 1581 were affected by Tramadol acute intoxication.
  • In 2013, 15 cases out of 1412 were affected by tramadol acute intoxication.
  • In 2014, 30 cases out of 1580 were affected by tramadol acute intoxication.
Tramadol-related deaths

- More recent data from the Ain Shams University Poison Control Center regarding patients presenting with tramadol intoxication and overdose show decline in the total number of cases yet still the same rate of death:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>ICU admission</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>740</td>
<td>124</td>
<td>17</td>
</tr>
<tr>
<td>2016</td>
<td>803</td>
<td>180</td>
<td>22</td>
</tr>
<tr>
<td>2017</td>
<td>650</td>
<td>141</td>
<td>29</td>
</tr>
</tbody>
</table>
Tramadol-related deaths

• In 2017, formal reports of the Forensic Medicine Sector of Ministry of Justice of Egypt show the number of deaths resulting from Tramadol abuse was 43 (39 males and 3 females) and the number of deaths that died for other reasons and confirmed Tramadol abuse was 143.

• The forensic report for those 43 cases showed the presence of general visceral congestion with lethal level of tramadol without any other medical condition could be the cause of death.

• 30 cases were below 40 years old while only 3 cases were above 60.
KEY POLICIES AND PRACTICES RELATED TO HEALTH AND LAW ENFORCEMENT IMPLEMENTED AND THEIR OUTCOMES
Key policies related to law enforcement

- Tramadol as a controlled substance
- Monitoring of illicit distribution
Tramadol as a controlled substance

• Based on data of abuse and illegal trafficking, Tramadol was first placed in Schedule III as annexed to the Egyptian law on Drugs, paragraph (D). This made it necessary to get a permit from the central administration of pharmaceutical affairs in the cases of importing and exporting of Tramadol. The permits were given according to the annual consumption plan of each company.

• Egyptian health and law enforcement authorities exerted their efforts to ensure the availability and control over the required legal quantities of tramadol for patients to prevent the establishment of the illegal markets of that drug. However, depending on the data received about the increased abuse of the substance, Ministry of health and population Ministerial decree 125 for the year 2012 dictated that Tramadol substance and its derivatives shall be removed from schedule (3) paragraph (D) and moved to section (2) of Schedule (1) Controlled substances attached to the drug enforcement law 182 for the year 1960.

Monitoring of illicit trafficking and distribution

• Despite the fact that the substance is not under International Control, the Egyptian Anti Narcotic General Administration (ANGA) has monitored the developments in the Tramadol market, intercepting the illegal trafficking and seizing a large quantity of the substance over the last six years.
# National Seizures

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Tablets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>132,799,052 tablets</td>
</tr>
<tr>
<td>2011</td>
<td>104,971,131 tablets</td>
</tr>
<tr>
<td>2012</td>
<td>435,622,885 tablets</td>
</tr>
<tr>
<td>2013</td>
<td>153,614,764 tablets</td>
</tr>
<tr>
<td>2014</td>
<td>156,775,468 tablets</td>
</tr>
<tr>
<td>2015</td>
<td>90,591,207 tablets</td>
</tr>
<tr>
<td>2016</td>
<td>217,057,333 tablets</td>
</tr>
<tr>
<td>2017</td>
<td>231,723,261 tablets</td>
</tr>
</tbody>
</table>

Total number = 1,523,155,101 tablets
Case Report

The Egyptian authorities seized 25,124,000 Tamol tablets 225 mg in the port of East Tafria in PortSaid and 50,000,000 Tamol tablets 225mg in Misurata port in cooperation with Libyan authorities and Drug Enforcement Administration. They also seized 9808 tablets with defendants of the same case (Total: 75,133,808 Tablet).
Case Report

The Egyptian authorities also seized money with the defendants, 9,904,425 Egyptian pounds, 101,489 US dollars, 31,590 euros, 124,000 Lebanese pound, 26,262 Saudi Riyal, 2,040 Arab Emirates Dirham, 900 Turkish lira, 200 English pounds and 2944 Yuan as revenues from smuggling. The properties of the defendants are estimated at 800 million Egyptian pound to camouflage the source of their money through money laundering.
Analysis of the seized products

• Samples of the seized products were subjected for Laboratory Analysis to assess the quality and safety of the content.

• In 2018, analysis done for some of the seized tablets by the Forensic Medicine Sector of Ministry of Justice of Egypt revealed the presence of a wide range of impurities rather than Tramadol HCl including CaSO4 (Gypsum), Sodium, Calcium Bicarbonate, Starch and Lidocaine.

• Moreover, some tablets had their coloured cover containing Copper 3:6 Octachlorophthalocyanine - which is not approved by FDA as food/drug additive, it is approved as a paint.)
Key policies related to Health

- Health Education and Training
- Tramadol Screening
- Referral To treatment
Health Education and Training

• Tramadol use disorder and its complications is now an important part of education and training in Medical, Nursing, Pharmacy and Dentistry education.

• Addiction Hotline working personnel take special training to deal with Tramadol use patients.

• Addiction Treatment Model of Care released in 2014 by The General Secretary of Mental Health has a special sector regarding management of Tramadol use and its complications.
Tramadol Screening

• Addiction treatment Centers, Psychiatric hospitals as well as Most of the General hospitals are now equipped with Tramadol screening tools and *specific and sensitive Laboratory tests* for Tramadol detection.

• Tramadol is included as a part of substances of abuse screening in *Bus and Truck drivers* and *most of workplaces*.

• Thorough assessment of Tramadol use in *first episode seizures* among adolescents and adults in General and specialized medical services.
Referral to treatment

- Reports from the Addiction Treatment Hotline showed that in more than half of the callers (51.8%) ask about information and require help from Tramadol abuse.

- Personnel running the Addiction Hotlines are trained for the reception of calls and proper referral of tramadol-dependent subjects.

- Subjects presenting with first ever seizures and a positive tramadol urine toxicological screen are referred to substance use services.
REMAINING CHALLENGES
National challenges

• Ongoing **trafficking of illicit tramadol** and relying only on National efforts to reduce the supplies of Tramadol.

• Lack of a Evidence Based guideline on the management of Tramadol use disorder independently from Opioids use disorder treatment, also among special populations as the mentally ill.

• Tramadol use is not assessed properly within the marginalized populations such as the prisoners, the homeless and extremely poor area although reports indicate its prevalence within them.

• Due to the energetic effect described by users of the tramadol, it is still very common among laborers including below age workers.
National efforts

• The Egyptian authorities believe that the negative consequences of Tramadol abuse necessitate that its control be expanded beyond a national control mechanism to be included under international control.

• In 2017, a conference room paper was submitted in CND during the sixtieth session on the same issue.

• While International control should not hinder the accessibility to Tramadol for medical use, but rather prevent illicitly manufactured production, thus, it can be proposed that Tramadol should be scheduled under international control allowing prior notification of its movement and trade.
WHO report 2014 – National Control of Tramadol
Thank You