# Final Progress Report

**Project Title:** Improving Dyslipidemia management in the Gulf

Cooperative Council (GCC) through the development of IAS-OSLA Course on "Lipid Metabolism and Cardiovascular

Risk".

## **Principal Investigators and Members:**

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### **Organization:**

Oman Society of Lipid and Atherosclerosis (OSLA) in collaboration with International Atherosclerosis Society (IAS).

**Project Date:** 8/1/13 - 12/31/15

## **Acknowledgment:**

We would like to thank Pfizer for providing educational grant to support the development of free of charge lipid educational program to improve dyslipidemia management among young physicians not only in the GCC but also in the

Middle East and North Africa Region.

We also, would like to thank IAS for their support and guidance toward developing and publicizing the program.

## **Grant Award Number:**

11540163

#### 1. Abstract:

**Purpose:** The IAS-OSLA Course on "Lipid Metabolism and Cardiovascular Risk" aims to increase the knowledge and experience of early-to mid-career English-speaking practicing clinicians interested in the management of lipid disorders in the Middle East and North Africa (MENA) region.

**Scope:** Cardiovascular diseases mortality rate remains high in the MENA region. This could be attributed to the high rate of uncontrolled multiple risk factors such as dyslipidemia, diabetes, obesity, hypertension and smoking. Data from the Gulf Cooperative Council (GCC) and other Middle East countries showed large gap in the management of dyslipidemia in the region that could be attributed to physician knowledge and patient awareness about the disease. In the MENA region few programs currently exist to educate physicians regarding dyslipidemia management. Therefore; the most effective method combatting dyslipidaemia and reducing morbidity and mortality outcomes in the region is by implementing educational programs for physicians.

**Method:** The lipid course consists of three days of lectures and interactive workshops delivered by leader and experts in the field of lipid disorders. The participants included were clinicians from different fields related to lipid management and restricted to the MENA region. The participants are admitted to the course upon submission of the required documents and selection criteria by the scientific committee consist of members from both IAS and OSLA.

**Results:** The 2015 and 2016, IAS-OSLA Lipid Course on "Lipid Metabolism and Cardiovascular Risk" has been extremely successful and has attracted 67 participants from 17 countries from the MENA Region including many of the GCC countries. The residential courses aims to increase the knowledge and experience of early- to mid-career English-speaking practicing clinicians interested in the management of lipid disorders. This unique series has also been successful in linking local, regional, and international leaders in the field of lipid management.

**Key Words:** Dyslipidemia, IAS, OSLA, MENA, GCC, CVD, Course.

## 2. Purpose of the Program:

The IAS-OSLA Course on "Lipid Metabolism and Cardiovascular Risk" aims to increase the knowledge and experience of early-to mid-career English-speaking practicing clinicians interested in the management of lipid disorders. This unique course will link local, regional, and international leaders in the field of lipid management with early-to mid-career physicians practicing in the Middle East and North Africa region (MENA). The course will help in establishing the resources and the basis for future development of lipid clinic network in the region.

## 3. Scope:

The increase in the cardiovascular disease (CVD)-associated mortality rate in the Middle East (ME) is among the highest in the world. Disorders of plasma lipids are key risk factors for the development of atherosclerotic cardiovascular disease (ASCVD) [1, 2], which is a leading cause of morbidity and mortality worldwide [3].

A large (n=4,378) study in the Middle East and Africa found that 70% of stable outpatients who attended general practice clinics had disorders of plasma lipids; in all countries in the study, the prevalence of these disorders in this population was >50% [16]. Of these, only 16% of subjects were receiving lipid-lowering medications and many subjects were not achieving LDL-C goals recommended by international guidelines [16].

In the Centralized pan-Middle East Survey on the under treatment of hypercholesterolemia (CEPHEUS), which was conducted in 5,276 patients in six Arabian Gulf countries (Bahrain, Saudi Arabia, Qatar, Oman, Kuwait and UAE) on LLDs<sup>39</sup>, LDL-C goal was attained in 52% in the overall cohort. This study also showed that physicians in the Gulf region seldom use high doses of statins in high-risk patients. A total of 77.0% patients in this study reported that they remained on the same dose of statin since it was first prescribed.<sup>39</sup> From these studies we observe that there is high gap for management of dyslipidemia in the region, which is multifactorial, could be related to factors like physician knowledge, patient awareness and others. Therefore; the most effective method combatting dyslipidaemia and reducing morbidity and mortality outcomes in the region is by implementing educational programs for physicians.

#### 4. Methods:

The lipid course consists of three days of lectures and interactive workshops delivered by leader and experts in the field of lipid disorders.

The participants are physicians interested in lipid metabolism, including cardiologists, endocrinologists, pediatricians, general practitioners, lipidologists, and clinical biochemists. The course is restricted to participants from the MENA region. For the selection of the participants for this course, first the applicants are informed about the course through eblast send by IAS office to all societies

under IAS, in addition to information send to local and regional hospitals. The applicants must submit the following documents:

- 1. Proof of age
- 2. CV
- 3. List of publications
- 4. Recommendation from the head of the department

A joint committee from both IAS and OSLA reviews the applications and the selected participants are informed.

OSLA cover the registration, travel and accommodation for both participants and faculty. The course is certified by the Oman Medical Specialty Board. During the course period the participants are challenged with a pre-test and post-test to measure their improvement in the knowledge and experience in terms of lipid disorders management. Participants with best test score and most improved test score are awarded at the end of the course.

For the workshops the participants are divided into 3 groups and each group are exposed to different clinical case scenario for 3 days. Each group is supervised by two faculties to guide them through the case discussion. Each group will then present his case and highlighting the important steps in management of the case in front of the entire group. The group with the best-case presentations from each day will be awarded at the end of the course.

#### **Workshop Structure**

The participants will be divided into 3 groups, in 3 different rooms equipped with table, chairs, a computer and a USB key. Total Workshop time: 3 hours (180 minutes)

### Schedule:

Steps	Duration/min
Presentation of 3 clinical different cases by the afternoon faculty	30
Each group will be assigned one case. Each group will convene in a room	
with two supervisors (afternoon faculty)	
Each group will discuss the clinical case assigned, will prepare slides	60
based on the discussion results. The discussion points and the slides will	
be presented by the group's representative in the closing plenary	
session afterwards	
Plenary session - Presentations by the 3 group's representatives	60
General discussion with all the faculty and participants	
Take home messages	
Communication skills - One member of the faculty will critically review	30
selected slides presented under the point of view of the graphics and	
communication clarity of content to help the participants improve their	
communication skills	

# 5. Results:

Two lipid courses were conducted. The first lipid course was from 8-10 of February 2015 in Muscat, Oman. Number of participants 32, number of faculty 16.

# Final Program:

#### IAS-OSLA Course Lipid Metabolism and Cardiovascular Risk Muscat, Oman, 8-10 February 2015

DAY 1 Feb 7th	Time 7.30 – 8.30	DAY 2 Feb 8th BREAKFAST	DAY 3 Feb 9th BREAKFAST	DAY 4 Feb 10th BREAKFAST
	8.30 – 9.30 Introductions Pre-Course Test		LDL, HDL and CVD: Epidemiology and Clinical Trials Philip Barter (Australia)	Genetic Approaches to Prevention and Treatment Philip Barter (Australia)
	9.30 – 10.15	Lipid/Lipoprotein Structure and Metabolism (Overview) Philip Barter (Australia)	Agents to Reduce LDL (and Future Developments) Raul Santos (Brazil)	Non-coronary Arterial Disease Dimitri P Mikhailidis (UK)
	Metabolism and Atherogenic Properties of LDL Raul Santos (Brazil)  Agents to Raise HDL (Do We Have the Right Biomarker of HDL Function?) Jacques Genest (Canada)		(Do We Have the Right Biomarker of HDL Function?)	Diabetes, Metabolic Syndrome and CVD Noor Al-Busaidi (Oman)
	11.00-11.30	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK
	11.30 – 12.15 of HDL Treatme		Nutraceuticals in Lipid-Lowering Treatment Manfredi Rizzo (Italy)	Lipid Guidelines: 2015 Dimitri P Mikhailidis (UK)
	12.15 - 13.00	Inflammation and Atherosclerosis Khamis Al-Hashmi (Oman)  Statin Tolerability: Overcoming the Treatment Gap Peter Lansberg (The Netherlands)		Coronary Artery Disease in Women Wael Almahmeed (UAE)
	13.00 - 14.30	LUNCH	LUNCH	LUNCH
	14.30 – 17.30	- 17.30 WORKSHOP 1 WORKSHOP 2 Familial Hypercholesterolemia: Diagnosis and Treatment Options Khalid Al-Waili (Oman) Zuhair Awan (KSA) Jacques Genest (Canada) Raul Santos (Brazil Peter Lansberg (The Netherlands) Wael Almahmeed (UA		WORKSHOP 3 Lipid Management in Special Populations Khalid Al-Rasadi (Oman) Manfredi Rizzo (Italy) Ahmad Al-Sarraf (Kuwait)
Faculty Meeting 15.00 – 18.00	17.30 - 18.30		Meeting of the Gulf FH Foundation	Post-Course Test Evaluation & Discussion
WELCOME DINNER 19.30 – 22.00	19:00 – 21:00	DINNER	DINNER	FAREWELL RECEPTION 19.00 – 21.30

The second lipid course was from 22-26 of February 2016 in Muscat, Oman. Number of participants 35, number of faculty 19. The additional day in this course compared to the previous course was for communication and leadership workshop.

## Final Program

#### The Second IAS-OSLA Course on "Lipid Metabolism and Cardiovascular Risk" Muscat, Oman, February 22-26, 2016

DAY 1 Monday, February 22	Time	DAY 2 Tuesday, February 23	DAY 3 Wednesday, February 24	DAY 4 Thursday, February 25	DAY 5 Friday, February 26	
1 201001 / 22	7.30 - 8.30	BREAKFAST	BREAKFAST	BREAKFAST	BREAKFAST	
	8.30 - 9.30	Introductions Pre-Course Test	LDL, HDL and CVD: Epidemiology and Clinical Trials Philip Barter (Australia)	Genetic Approaches to Prevention and Treatment Peter Lansberg (The Netherlands)	Communications an Leadership Workshop: Personal Effectiveness and Team Work: Going Beyond Expectations Sheikh Omar Abdul Rahman (Malaysia)  Personal Effectiveness and Team Work: Going Beyond Expectations Sheikh Omar Abdul Rahman (Malaysia)	
	9.30 - 10.15	Lipid/Lipoprotein Structure and Metabolism (Overview) Philip Barter (Australia)	Agents to Reduce LDL (and Future Developments) Raul Santos (Brazil)	Non-coronary Arterial Disease Dimitri P Mikhailidis (UK)		
	10.15 - 11.00	Metabolism and Atherogenic Properties of LDL Raul Santos (Brazil)	Agents to Raise HDL (Do We Have the Right Biomarker of HDL Function?) Philip Barter (Australia)	Diabetes, Metabolic Syndrome and CVD Noor Al-Busaidi (Oman)		
	11.00-11.30	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	
	11.30 - 12.15	Metabolism and Protective Properties of HDL Khalid Al-Rasadi (Oman)	Agents to Reduce Plasma Triglyceride The present and the future Nevrez Koylan (Turkey)	Statin Tolerability: Overcoming the Treatment Gap Peter Lansberg (The Netherlands)	Personal Effectiveness and Team Work: Going Beyond Expectations Sheikh Omar Abdul Rahman (Malaysia)	
	12.15 - 13.00	Causes of Obesity Nadia Ahmad (UAE)	Obesity Management (Current and Future Approaches) Nadia Ahmad (UAE)	Gender Differences in Acute Coronary Syndromes: Results in the Gulf RACE-I Wael Almahmeed (UAE)		
	13.00 - 14.30	30 LUNCH LUNCH		LUNCH	LUNCH	
	14.30 - 17.30	WORKSHOP 1 Management of Patients with Familial Hypercholesterolomia Khalid Al-Wali (Oman)/ Nevrez Koylan (Turkey) Ahmad Al-Sarraf (Kuwait)/ Raul Santos (Brazil) Zuhier Awan (KSA)/ Peter Lansberg (The Netherlands)	WORKSHOP 2 Management of Patients with Complex Lipid Cases Peter Lansberg (The Netherlands)/ Wael Almahmeed (UAE) Nevrez Koylan (Turkey) / Zuhier Awan (KSA) Manfredi Rizzo (Italy)/ Noor Al-Busaidi (Oman)	WORKSHOP 3 Management of Lipid Disorders in Special Populations Nadia Ahmed (UAE)/ Khamis Al-Hashmi (oman) Ahmad Al-Sarraf (Kuwait)/Feter Lansberg (The Netherlands) Fahad Al-Zadjai (Oman)/Manfredi Ritzo (Italy)	Personal Effectiveness and Team Work: Going Beyond Expectations Sheikh Omar Abdul Rahman (Malaysia)	
Faculty Meeting 16.00 – 18.00	17.30 - 18.30				Post-Course Test Evaluation & Discussion	
WELCOME DINNER 19.30 – 22.00	19:00 - 21:00	DINNER	Satellite Symposium Sponsored by Sanofi 19.30-21.00 Dinner 21.00-22.30	DINNER	FAREWELL RECEPTION 19.00 – 21.30	

## **Conclusion and Implications**

The 2015 and 2016, IAS-OSLA Lipid Course on "Lipid Metabolism and Cardiovascular Risk" has been extremely successful and has attracted 67 participants from 17 countries from the MENA Region including many of the GCC countries. The residential courses aims to increase the knowledge and experience of early- to mid-career English-speaking practicing clinicians interested in the management of lipid disorders. This unique series has also been successful in linking local, regional, and international leaders in the field of lipid management.

The participants and the faculty are keeping an open communication through emails, networking to discuss the management of several interesting cases from their clinical practice. Also, some participants decided to start their own lipid clinic within their hospitals and organizing serial of educational lectures concerning lipid disorders management. Other participants showed interest to collaborate on research to collect data from the MENA region concerning the prevalence, management and the treatment gaps concerning the different dyslipidemia especially diabetic and familial hypercholesterolemia.

The OSLA with the support from the IAS are planning to seek for more grants to continue conducting this highly valuable educational course and graduate more clinicians who will be able to improve the management of dyslipidemia in their hospitals and institutions.

#### 6. List of Publications and Products:

You can access the course timetable, lectures, photos, faculty and participants lists at the IAS official website <a href="https://www.athero.org">www.athero.org</a>.