



## *Tenth MPH Poster Conference Showcases Public Health Internship Experiences*

*December 08, 2023*

The Public Health Internship course provides the MPH students the opportunity to apply theories, ideas, and skills learned in the classroom to public health practice in real work settings, and to network with public health professionals.

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**AUA** TURPANJIAN COLLEGE of  
HEALTH SCIENCES



**Program background:**

Reducing the stress of the children and parents is important to eliminate surgical complications, length of stay at the hospital, the need for post-operative analgesics, and boost patient satisfaction.

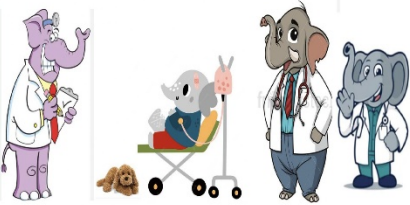
**Overview of the organization:**

Wigmore Hospital For Children is a modern multi-specialty children's hospital, where all the medical care is organized according to the best standards of evidence-based medicine with the help of leading specialists in their field.

Development of the pre-surgical preparation educational materials will target the parents to help them properly follow the guidelines before and after surgery and lessen the stress of the children who will know the step-by-step procedures they will experience at the hospital.

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Իրական ժողովի կողմակցում և օգնությամբ մեղմել անդր և սառած ողբ անցում, միջառարարական անցում ընթացում: հետևյալ են կար շարահանական և արտի աշխատանքներ:



Գրական և արտի աշխատանքներ և կարգի առարարական ընթացում, ուղևոր անցումներ: Իրական անցումներ և ընկեր միջառարարական ընթացում:

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**ELEPHANT GOES TO WIGMORE HOSPITAL**

The pre-surgery preparation book

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**Lessons Learned**

- ✓ Learned the importance of seeking and accepting feedback from peers and supervisors,
- ✓ Learned the importance of advocating for behaviour change with education,
- ✓ Learned about the importance of communication between medical staff for reducing misinterpretation of patient health information.

**Skills Gained**

- ✓ Time management
- ✓ Communication skills
- ✓ Collaboration skills

**Internship Objectives**

- ❖ To understand the organizational structure and functions of Wigmore Children's Hospital.
- ❖ Conduct observership of the admission process, patient-anaesthesiologist meetings, different types of surgeries, pre-surgery preparation and post-surgery care at inpatient unit.
- ❖ To prepare character based educational book on pre-operation preparation for children and for their parents

**COMPLETED TASKS**

- ❖ Literature review on the effective ways of preparing children for surgery.
- ❖ Review of the current pre-surgical preparation guidelines of the hospital.
- ❖ Meetings held with the head of ICU department, admission coordinator, surgical department nurses.
- ❖ Observership of the patient admission, pre-surgery, surgery, Post Anaesthesia Care (PAC), and inpatient units.
- ❖ Pre-surgery preparation educational book content and character development for children and parents.

# MPH Internship at ClinChoice Clinical Research Organization Company

**AUA** American University of Armenia  
TURBANJIAN COLLEGE of HEALTH SCIENCES

**Intern: Liliانا Varadyan, MPharm**  
**Internship Coordinator: Dr. Tsovinar Harutyunyan, MPH, PHD**  
**Internship Preceptor: Zarine Simonyan, MD, MPH**  
**Internship Supervisor: Seda Aghabekyan, MD, MPH**



## Overview of the organization

ClinChoice is a leading full-service CRO offering high-quality assistance in evaluating the effectiveness of the ways of detecting, diagnosing, preventing, and treating diseases. The mission of the company is "To contribute to a healthier and safer world by accelerating the development and commercialization of innovative drugs and devices."



## Program Background

The projects of the internship program were part of the regular work of the Clinical Operations Department. An advanced literature review provided essential information (demographic analysis, efficacy, safety) to the large project, which aimed to conduct a clinical trial on the topic of smoking cessation. Working with the study protocols is an important component of the job in CRO for assistance in the conduct of clinical trials.



With my preceptor Zarine Simonyan

## Internship Objectives

- Objective I:** To conduct an advanced literature review regarding "The effect of nicotine replacement therapy, cytisine, electronic cigarettes, varenicline/bupropion/vaping, web program, and text messages on smoking cessation" necessary for the selection of the study population and the study design of the clinical trial.
- Objective II:** To complete training on "CRA (Clinical Research Associate) responsibilities, Practical Discussions" at the Clinical Operations Department.
- Objective III:** To review and address some parts (adverse events, inclusion-exclusion criteria, informed consent, and study design) of the protocol of a single-center, randomized, controlled clinical study that assesses the Tolerability (Safety) and Efficacy of IP (Investigational Product) on adult subjects.

## Completed tasks

- Screening of 643 abstracts retrieved from PubMed. Identifying relevant articles
- Conducting a full-text review, extracting the relevant articles in an Excel Spreadsheet.
- Preparing Slide Deck based on the extracted information. In addition to the goal, objective, and research questions of the topic, the Slide Deck also includes background information about the quitting methods, demographic information of the study subjects, results in the scope of efficacy and safety, study limitations, and conclusion.
- Participating in the training on the topics of "Site Feasibility and Site Evaluation," "Site Initiation," "Site Monitoring Visit," and "Site Close-out, Study End."
- Writing a summary report on the topics of the training.
- Getting familiar with the structure of a protocol of "A clinical research trial confirming the safety and performance of medicine XXX for the relief of allergic rhinitis symptoms," working on exclusion criteria, including calculation of the timeframe for medications that could be used by the subjects during the study.
- Getting familiar with the definition of adverse events, serious adverse events (SAE), SUSAR (Suspected Unexpected Serious Adverse Reaction), and PQC (Product Quality Compliance). Reviewing some cases and classifying them as SAE, SUSAR, or PQC.

## Skills gained

- Communication
- Research
- Analytical skills
- Time management
- Presentation

Source	Method name	Efficacy
Ting et al., 2023	NRT	<ul style="list-style-type: none"> <li>• NRT Referred patients were less likely than Quitline callers to use nicotine replacement therapy (41.2% vs. 25.5%; <math>p = .0001</math>) or any cessation medication (52.3% vs. 60.8%; <math>p = .01</math>).</li> <li>• The groups was similar in their rates of making a quit attempt (88.8% vs. 71.4%; <math>p = .23</math>), quitting for 30 days (28.3% vs. 28.8%; <math>p = .93</math>), and quitting for 6 months (13.8% vs. 13.9%; <math>p = .88</math>).</li> </ul>
Kaplan et al., 2023	NRT	<ul style="list-style-type: none"> <li>• The percentages of quitting smoking among those who used NRT and a combination of NRT and non-NRT medication were 18.1% (<math>n=37</math>) and 14.8% (<math>n=13</math>), respectively (<math>p=0.87</math>).</li> <li>• These differences remained non-significant in the logistic regression model.</li> </ul>
Vidrine et al., 2023	NRT	<ul style="list-style-type: none"> <li>• No significant effect for MAPP (Motivation And Problem-solving) over ST (Standard Treatment) at 18 months (4.5% vs 12.5%, <math>P = .29</math>).</li> <li>• MAPP vs ST abstinence rates were significantly greater at 12 months (28.4% v 11.9%, <math>P = .012</math>); sustained OR 2.20 (95% CI 1.19 to 3.99).</li> </ul>
Bouchard et al., 2023	E-cigarettes	<ul style="list-style-type: none"> <li>• Diver use of e-cigarettes in perinatal cessation (ORadj=1.71; 95% CI 1.48 to 1.96), on singular (ORadj=1.30; 95% CI 1.10 to 1.53), and ex-experimental (ORadj=1.43; 95% CI 1.23 to 1.53) was compared with never use, was associated with a higher motivation to stop.</li> <li>• The use of e-cigarettes among tobacco smokers often indicates preparation for a quit attempt.</li> </ul>
Wang et al., 2023	E-cigarettes	<ul style="list-style-type: none"> <li>• The "vaping" subgroup (tried to quit) small proportion (3.7%) of smoking mothers who had the highest use rate (80.1%) of e-cigarettes during pregnancy.</li> <li>• The "vaping" subgroup had lower rates of being abstinent (31.3% vs 43.5%) or reducing smoking amount (52.0% vs 34.2%) in late pregnancy than those who did not try any quit (not for adjusted model)</li> </ul>

A part from the Results section of the Slide Deck

## Important lessons

- Learning to effectively work with a professional team, where every team member had considerable experience in Public Health.
- Clinical trials financed by foreign sponsors in Armenia help to build local clinical research portfolio and capacity.
- To keep professional relations separate from personal relations in the team and not share confidential information.



**MPH Internship at Wigmore Hospital for Children and Wigmore Clinic**  
 Intern: Aman Singh  
 Preceptor: Dr. Shahane Mnatsakanyan  
 Internship Coordinator: Dr. Tsovinar Harutyunyan

**Overview of organization**

Wigmore Hospital For Children provides a range of medical services that are available to all children. Wigmore Clinic is a modern center for departments with state-of-the-art facilities such as an orthopedic department with an analysis lab, Pediatric, Radiology, and Rehabilitation therapy.

**Program Background**

A Baseline Hand Hygiene (HH) monitoring program was conducted in 2021 and 2022 in the Surgical and Pediatric departments of Wigmore Clinic and Wigmore Hospital for Children. A follow-up program, including monitoring departments such as the Pediatric, Surgical, ICU, Emergency, and Wigmore Clinic, has been planned for 2023.

**Compliance (%) among pediatric, surgical, ICU, and emergency in the Wigmore Hospital for Children and in the surgical department in Wigmore clinics in 2023.**



**Internship Objectives**

- Understand the organizational structure, functions, and processes and get familiar with the past and ongoing projects conducted by the Organization autonomously and in collaboration with WHO.
- Participate in Hand Hygiene Compliance Monitoring Program (HHCMP):
  - Investigate HH compliance among healthcare providers at Wigmore Clinic and Wigmore Hospital For Children based on WHO guidelines.
  - Assess the performance of HH based on the set of compliance indicators:
    - The HH essential Compliance per department %
    - The HH essential compliance per medical profession
  - Compare the follow-up results with the investigations conducted in 2021 and 2022.
  - Present the results and suggestions to improve and sustain HH compliance to healthcare professionals of the organization.

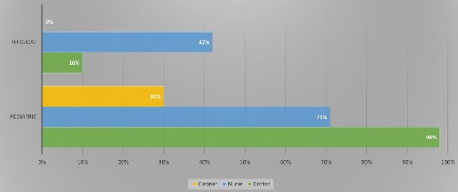
**Completed tasks**

- ✓ 96 hours. Conducted observations in the departments via physical attendance and adherence by myself in the operation room, corridors, laboratory, and each room of the departments.
- ✓ The observation was done among the hospital's staff members (doctors, nurses, cleaners, chefs, and trainers).
- ✓ Participate in Hand Hygiene Compliance Monitoring Program (HHCMP)
- ✓ The observation form was done with questions about the staff's hand hygiene practices before touching a patient, aseptic procedure, after touching a patient, after body fluid exposure risk and after touch the patient's surroundings.
- ✓ The hospital staff has been observed in such department. (Pediatric, Surgical, ICU, Emergency, and Surgical departments at Wigmore Clinic). In total, I have observed 140 hospital staff.
  - ✓ Reviewed ongoing and upcoming projects at the organization.
- ✓ Examined the institution's mission, vision, and values, as well as its role and core functional areas.
  - ✓ Revised the quality policy and ethics policy of the organization.

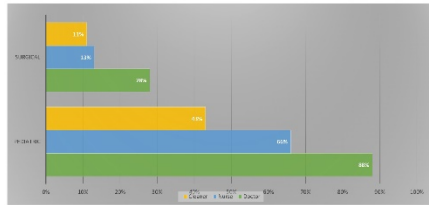
**WHO recommended an observation form for the Delivery of healthcare activities to patients.**

Medical professional	Observed	Hand wash (n)	Hand rub (n)	Compliance (%)
doctor	48	6	34	83
nurse	59	17	29	78
cleaner	29	7	12	66
trainer	3	0	2	67
chef	1	0	1	100
total	140	30	78	77

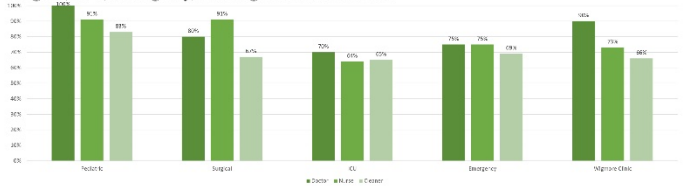
**Baseline data of observation (2021)**



**Baseline data of observation(2022)**



**Compliance (%) with medical professionals among Doctors, Nurses, and cleaners in the Pediatric, Surgical, ICU, Emergency, and Wigmore clinics in 2023**

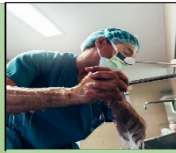


**Important Lessons**

- I learned the importance of teamwork and maintaining a good working environment.
- Being fluent in the local language of the country you are working in credits to your work.
  - It is imperative to develop a work plan and stick to it.
- It is important to be punctual for staff meetings, have the skills to manage a large professional community, and convey the program results during staff meetings.
- Building healthy working relationships is important for time management, compassion, and empathy toward others.
- I understood the significance of serving as an excellent example to other healthcare workers in terms of adhering to WHO standards.

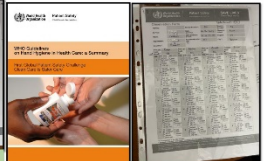
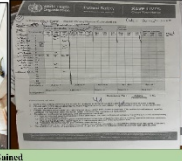
**Results of HHCMP 2023**

- A literature review of healthcare worker-associated infections and their global burden was done.
- Reviewed and studied the observation methods from WHO's videos and guides such as the Hand Hygiene Technical Reference Manual.
- Performed HH compliance monitoring in 5 departments, such as the organization's Pediatric, ICU, Surgical, Emergency, and Wigmore Clinic, for four weeks.
- Conducted data analysis and transformed the results into a basic compliance calculation table in MS Excel and google sheets according to WHO format.
- Calculated and presented the Percentage of compliance per medical professional and Compliance (%) with medical professionals among Doctors, Nurses, and cleaners in the Pediatric, Surgical, ICU, Emergency, and Wigmore clinics.
  - Developed department-wise suggestions for improvement based on the results.
- Prepared and presented results to Wigmore Hospital For Children's Hospital Infection Control Committee.



**Skills Gained**

- Communication skills.
- Observed each step during observation.
- Being punctual during the observation period.
- Individual and team-level time scheduling and management.
- Maintaining objectivity throughout the observation process.
  - Diplomacy in work.
- Learned the importance of program tasks and activities.
- I learned how to work with MS Excel and Google Sheets.
- Learned how to provide constructive feedback and criticism.



Intern: Sose Margaryan, MD  
 Internship Preceptor: Zara Janibekyan, MD, MPH  
 Internship Coordinator: Tsovinar Harutyunyan MPH, PhD

### Overview of the organization:

The Jinashian Memorial Foundation (JMF) began work in Armenia in 1993 and the priority programs of JMF are: Health, Education and Spiritual uplift, Economic Development, Community Development, Civil Society.

### Internship objectives:

- Developing project proposal for the “**Healthy lifestyle**” educational program.
- Developing project proposal for the “Establishment of Health Ethics of Armenia”
- To conduct a monitoring visit to the “Rehabilitation Center for Children with Disabilities and Development Disorder in Sevan”



Rehabilitation Center in Sevan

### Project Background:

- A healthy lifestyle is a global health cornerstone. It is important to introduce healthy habits from an early age. Although there are several programs related to healthy lifestyle in some of the schools in Yerevan and in Marzes, and there are formed Students Councils in all schools of Armenia, there are no active educational programs promoting healthy food and healthy lifestyle among pupils.
- The Government has approved the rules of professional ethics for the healthcare professionals in Armenia, but there is no Code of Medical Ethics approved in Armenia. There is a need of implementation of the ethical standards in the field of medicine.
- A specialized Rehabilitation Center established in Sevan for children with disabilities and development disorder. Regular monitoring visits help ensure that the center maintains high standards of care and help do need assessment.

### Lessons Learned:

- ❖ Understood the importance of timely and smooth collaboration of foundations with Governmental institutions and NGOs to realize social and other programs effectively
- ❖ Importance of collaboration with colleagues for successful program implementation.
- ❖ Importance of individual time management in multi-stage and team projects.

### Completed Tasks:

- ✓ Literature review was conducted for “Healthy lifestyle” educational program and for the program “Establishment of Health Ethics in Armenia” to understand the experience of different countries.
- ✓ The regulations, laws, and other ongoing programs related to the projects were studied.
- ✓ For the program “Healthy lifestyle” the budget was formatted, the strategic goals and objectives were described, Gantt chart for the project was formatted and the project proposal was developed.
- ✓ A monitoring visit to the “Rehabilitation Center for Children with Disabilities and Development Disorder in Sevan” was conducted. We used Log Frame as an evaluation and monitoring tool during the visit and wrote a report about monitoring results.
- ✓ Concept paper for “Ceramics classes for the children with disabilities and development disorders” in the Sevan Rehabilitation Center was created. The importance of art therapy, essential ceramics equipment, and the preliminary budget for the program were described in the paper.
- ✓ We did mapping of the funding organizations in Armenia, EU, USA to understand if there are other foundations that can be involved in the mentioned projects.

### Skills Learned:

- ❖ Planning and executing projects
- ❖ Budgeting
- ❖ Monitoring projects

## Overview of the Organization:

- Wigmore Women's & Children's hospital, is a modern multi-specialty children's hospital that offers 24-hour access to all pediatric treatments. The newly opened hospital is committed to a child's health above and beyond all other considerations, thus the hospital makes every effort to guarantee their quick recovery and comfort.



During Presentation

## INTERNSHIP OBJECTIVES:

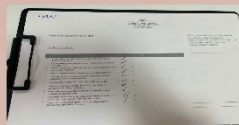
- Getting familiar with the organizational structure and functions of Wigmore Women's & Children's hospital.
- Reviewing materials related to medication safety at Wigmore.
- Literature review of medication safety management in international hospitals in the USA, Australia, and Canada, and becoming familiar with the international practice.
- Develop a strategy for monitoring the current management of medication safety at Wigmore Women's & Children's hospital.
- Conduct monitoring of all departments of Wigmore Women's & Children's hospital.

## LESSONS LEARNED:

- Learned the value of detail-oriented work for the program's success.
- Learned the hospital's workers' hierarchy, i.e., organizational work which provides healthcare workers with an organized structure with clearly defined roles and duties, enabling faster and more informed decision-making to satisfy the needs of patients and provide timely interventions.
- Learned the value of communication among staff members.
- Learned the role of nurses in ensuring high-quality care at the hospital, and how it impacts the level of patient satisfaction.

## SKILLS GAINED:

- Organization skills
- Time management skills
- Task organization skills
- Active monitoring
- Ability to work under high pressure.



## Program Background:

- Medication errors are a major concern in healthcare systems, resulting in negative patient outcomes, increased healthcare expenses, and possibly legal complications. Wigmore Women's & Children's hospital, aims to reduce medication errors at the institution through the introduction of the Drug Safety Checklist to ensure proper drug administration, eliminate errors, and increase patient safety.



With my Preceptor

## COMPLETED TASKS:

- Literature review on medication safety in international hospitals
- Reviewing materials related to medication safety used in Wigmore Clinic, including the JCI standard Section for Medication management, WHO standards, and Management of high Alert Medication.
- Summarizing articles about International Accreditation Standards for Hospitals in Australia and using them to make recommendations in our checklist.
- Development of a standard for safe medication management for use in Wigmore Women's & Children's hospital, based on the Australian National Safety and Quality Health standards.
- Monitored all departments of Wigmore Women's & Children's hospital in Armenia, using the Comprehensive Checklist that includes 10 points that can help healthcare providers prevent medication errors by ensuring that all necessary steps are taken when prescribing, dispensing, and administering medications.
- Had a final meeting regarding my experience at Wigmore Women's & Children's hospital with the doctors and nurses of all departments to share and discuss the results of my work.



**CONTACT INFORMATION:**

shaghig\_minassian@edu.aua.am

# MPH internship at the Nork-Marash Medical Center



**AUA** TURPANJIAN SCHOOL of PUBLIC HEALTH

Intern: Hrag Torossian

Internship Preceptor: K. Poghosyan MD, MPH

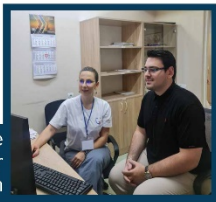
Internship Coordinator: T. Harutyunyan MPH, PhD

## Overview of the Organization

Nork Marash MC is the leading Cardiac clinic in the region, providing high-quality medical care for adult and pediatric cardiac patients while conducting numerous biomedical and public health studies.

## Project background

Due to a lack of available questionnaires that guide public health-engaged physicians in assessing warfarin-related complications in patients with artificial valves, the survey assesses bleeding and thrombotic complications during their short-term follow-up. It also aimed to add-up information to complete the study aiming to investigate associations between Time in therapeutic range (TTR) that is acquired based on the patient's INR and above mentioned complications. The study will help better organize patient care and help their physicians minimize rates of complications and hence improve their quality of life.



Discussions with the internship preceptor Dr. K. Poghosyan

## Completed Tasks

- Discussing the project and conducting a thorough literature review on mechanical valves, warfarin intake, and its side effects.
- Getting familiar with the inclusion and exclusion criteria of the study.
- Reviewing, editing, and translating the questionnaire while communicating with the institutional IRB. Pretesting the questionnaire.
- Learning how to operate Alchemer. Creating the data entry screen, labels, and values, then testing links with SPSS.
- Establishing a coding system, pretesting the survey, making updates, getting IRB confirmation, and finalizing.
- Collecting data from 130 participants through a telephone survey.
- Data cleaning, merging with data from previous studies, initial analysis, and generating graphs.

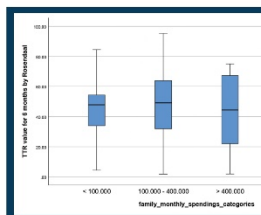


Figure 1: Rosendaal categorized Time in therapeutic range (TTR) ranges among different socio-economic categories of patients who underwent mechanical valves replacement at the Nork Marash Medical Center and take warfarin as their main anticoagulant.

## Skills Gained

- Effective discussion skills
- Efficient task organization skills
- Professional Communication
- Questionnaire reviewing and editing
- Operating "Alchemer"
- Telephone survey conducting
- Advanced SPSS skills
- Effective data cleaning and analysis

## Internship objectives

- I. Understanding the ongoing project through:
  - Discussions with the preceptor and reviewing available datasets and the preliminary questionnaire.
- II. Finalizing and testing the questionnaire on bleeding and thromboembolic complications through:
  - Reviewing similar studies with validated questionnaires, scoring systems, and assessment tools.
- III. Creating the survey tool and labels.
- IV. Establishing a coding system to support data analysis.
- V. Data collection and analysis through:
  - Data collection through phone calls.
  - Reviewing, cleaning, and merging data.
  - Perform initial data analyses and generate representative graphs.

## Lessons Learned

- How to effectively organize time and direct efforts towards realizing project goals.
- Communicating with specialists and participants using different strategies.
- The importance of public health studies in improving clinical care.

On December 8, second-year students of the Master of Public Health (MPH) program of the American University of Armenia (AUA) Turpanjian College of Health Sciences (CHS) delivered poster presentations describing their internship experiences in various public health organizations. This was the tenth poster conference organized for MPH students. Dr. Tsovinar Harutyunyan is the CHS internship coordinator.

MPH students conducted their internships at Jinishian Memorial Foundation; Nork-Marash Medical Center; and Wigmore Clinic.

During the poster conference, CHS faculty and researchers, representatives of the internship organizations, MPH and BSN students and alumni, and other guests voted for the best poster. Hrag Torossian received the highest number of votes in this round. Additionally, the scientific committee comprising CHS faculty selected the poster by Tamara Sedrakyan. Dr. Harutyunyan presented small gifts to the winners.

The Public Health Internship program was added to the MPH curriculum with the objective of providing students with an opportunity to apply the knowledge, and skills acquired in the classroom to real public health projects and to network with public health professionals.