# Pharmaceutical Interventions in Safe Falling Program for Elderly

SPORTS PHARMACIST ABDELMONAIM ELSAYED

### **JUDO PHARMACIST**

IOC - Certified Drugs in Sport Pharmacist IJF Academy UCJI - Certified Judo Instructor ASHP - Certified Medication safety Specialist BPS - Certified Sterile Compounding Pharmacist B.Sc. – Pharmaceutical Sciences - Alexandria University

Abdelmonaim Elsayed



Father Caregiver Judo Coach

**Hospital Pharmacist** 

### DISCLOSURE

I have no financial relationships to disclose with regard to this presentation and all the information presented is available for public with the reference support

# **Latest Competencies**

International Testing Agency – Anti-Doping Course for International Federations Nov 2024 Saudi Heart Association - Basic Life Support Provider | Aug 2024 **Sports Integrity Australia** – Sports Pharmacy Course |Aug 2024 World Anti-Doping Agency - Medical Professionals at Major Games Jul 2024 World Anti-Doping Agency - Medical Professional's at Education Program Jul 2024 Stanford University - Anti-Doping Education for Healthcare Professionals Jul 2024 United States Safe Sports Center - Safe Sports for Health Professionals |Feb 2024 International Sports Pharmacists Network - Sports Pharmacy Symposium |Aug 2023 International Pharmaceutical Federation - Sports pharmacy practice and education Aug 2023 International Testing Agency – Anti-Doping Course for International Federations |May 2023 **International Kurash Association** – 5 Lines and 1 Star Belt Holder | Jun 2022 Future Health Training Center - Sport Taping and Strapping techniques | Jun 2022 Saudi Arabia Judo Federation – 5<sup>th</sup> Dan Black Belt Holder |Dec 2021

# WHY AM I HERE TODAY?

Judo's philosophy revolves around two primary principles

Seiryoku-Zenyo - optimal use of energy Jita-Kyoei - mutual welfare and benefit

Emphasizes the importance of balance, respect, and cooperation that practitioners strive to achieve not only physical strength but also emotional and mental well-being



Nothing under the sun is greater than education. By educating one person and sending him into the society of his generation, we make a contribution extending a hundred generations to come.

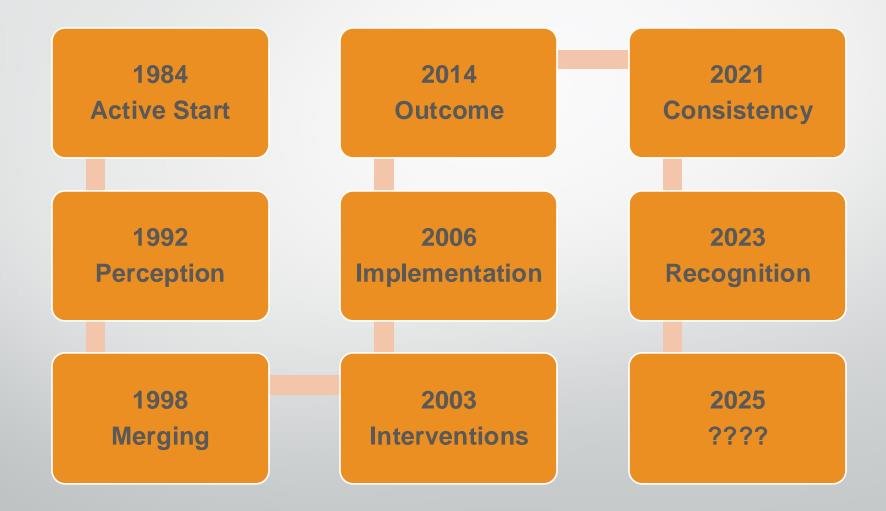
name dua

Kano Jigoro Shihan Tokyo- Japan 1860 -1934 Kodokan Judo Institute Founder 1882



# THE PROPER INTERVENTION AT THE RIGHT TIME IS PRICELESS

# History Time Line



# Active Start 1984

00	00000
UNIVERSITY SIELIO V. PELENDRIDIS JUDO · KARATE S. O S. Stelio Original System International Champions Trainer 78 Omar Loutit - Alexandria	جامعة جامعة الحودو - الكاراتية اس . أو . إس . على طريقة البروفر-ير ا-تيليوف . بانمدريديس مدرب الأبطال الدوليين ٨٧ ش عمر لطني - الامكندوية
We Certify that Mrs 1 <u>Ald Memaann aly abd Memaann</u> has Passed exams Of <u>Jellow</u> belt Date 1986 March. Judo Registered No. <u>1920</u> 1986 Secretary	تشرد بان السيد / عمر المنصح على على الحرزام قد حصل على الحرزام التاريخ ٢٨.٩٧ دقم التسجيل ٢٨.٩٢
Alexandria general Trainer and judo Federation Members Of examiners	

### Perception / Merging / Interventions 1992 – 2003



Judo Superiority – Added value – Eligibility for Faculty of Pharmacy

### Flying to Success 2003–2006



Judo Coaching – Pharmaceutical Interventions – New Start

# Implementation / Outcome /Consistency 2006 - 2021



# Appreciation 2022



220042





الملكة العربية السعودية وزارة الدفاع وكالة الوزارة لخدمات التميز الإدارة العامة للخدمات الصحية مدينة الأمير سلطان الطبية العسكرية إدارة العلاقات العامة والتوجيه المغوى

#### Patient Safety Star 2022 This Certificate of appreciation presented to

#### Ph. Abdelmonaim Ali El Sayed

In recognition of h is valuable participations for Improvement of Patient Safety on Prince Sultan Military Medical City We Wish You All The Best and Continued Success.

Maj. Gen. Dr. Saud Othman Al-Shlash

General Executive Director Prince Sultan Military Medical City

# IJF Recognition 2023





# , JFACADEMY

#### UNDERGRADUATE CERTIFICATE AS JUDO INSTRUCTOR

Name: ELSAYED Abdelmonaim

Date of birth: 1981-07-23

Country: Saudi Arabia

Student ID: 8368

Certificate number: UCJI / 631 / 2023



# JOY Judo Pharmacist's Approach 2024



# JOY 2024



# CLEAN **Judo Pharmacist's Approach** 2024



News • Calendar •

Members • Gallery

World ranking •

Clean Judo •

Clean Judo

Report Match Fixing / Competition Manipulation

Report Doping

#### **Clean Judo**

Results •

Documents

Beyond being one of the most prestigious and universal Olympic disciplines, Judo is more than sport - it is also an acknowledged educational tool and a way of life enriched by a moral code and ethic values that have firmly withstood the trial of life.

About IIF 🔹

Store

Q

- **C** Competency
- L Learning
- **E** Education
- A Anti-Doping
- N Natural

# First IOC Drugs in Sports certified IJF Academy Judo Instructor 2024



# **QUESTIONS?**

- **1.** SPORTS PHARMACIST?
- **2.** EDJCO PLATFORM?
- **3.** RELEVANT INTERNATIONAL STATS?
- **4.** MEDICAL ASSESSMENT FOR CANDIDATES?
- **5.** AWARENESS OF ELDERLY MEDICATION?
- 6. PERIODICAL MEDICATION RECONCILIATION?
- **7.** RELEVANT INTERNATIONAL ORGANIZATIONS?

### **SPORTS PHARMACIST**

- Sports pharmacists possess expertise in medications, supplements, and other pharmaceutical interventions that are relevant to sports performance, recovery, and overall health.
- A clinical sports pharmacist is a specialized pharmacist who focuses on the pharmaceutical needs of athletes and individuals engaged in physical activity, including both recreational and professional athletes.

# Gap analysis

- Sports pharmacists play a crucial role in the sports context by closing the loop between athletes, their support personnel.
- They play a crucial role in identifying critical issues and preventing athlete's harm. Their basic knowledge covers a wide range of medical and social aspects of sports governance, enabling them to proactively address potential challenges..
- Clinical Sports Pharmacist who is regularly attending with team's training sessions, will provide effective on site interventions resembling the clinical pharmacist doing In-patients hospital rounds with medical team or attending patients in Out-patients clinics.

Elderly who are doing physical activity may require specialized on site care similar to hospital-admitted patients, potentially reaching level of an ICU

# **Gap identification**

- In Clinical Practice, sports pharmacists can advise athletes on the safe, effective and permissible use of drugs in sport serving as a safety net.
- They can also advise other individuals who participate in sport and exercise, or doing any physical activity on the safe use of medicines and supplements.
- Proper referrals to Sports Physician, Sports Physiotherapist, Sports Nutritionist, Sports Mental Health Specialist and Sports Safeguarding Specialist.

Sports Pharmacy serves as a vital support system for all athletes, encompassing both technical and healthcare personnel.

This inclusive approach ensures easy access to essential assistance for athletes

# EDJCO Module 3

### Educating Judo Coaches for Older practitioners

EDJCO (Project ref. 622155-EPP-1-2020-1-IT-SPO-SCP)

### **3. SAFETY AND FIRST AID**



- 3.1 Medical aspects: history, certificate and drug use
- 3.2 Risk prevention
- 3.3 Diet and hydration
- 3.4 Self-Evaluation Quiz
- **3.5 References**

# EDJCO Module 3

#### **General advices**

The majority of older adults can safely take up light to moderate exercise, such as walking, with medical clearance suggested before, starting vigorous exercise.

However always novices may start Ukemi and Flexibility exercises from the mat. Also Throws, if possible, must start from seated position then kneeling, squatted, then up but in very slow and soft way.

Tips to avoid injury include:

begin slowly with low-intensity exercises, warm up with low-intensity exercises at the start of an exercise bout, be aware of your surroundings, ex. the end of mat. Etc.

An older adult at high risk for or diagnosed with heart disease, or whose weight is categorized as obese or high obese, should consult with a health care professional prior to becoming more physically active.

With older adults should take precautions or avoid exercising outdoors in very warm or very cold weather and in the Dojo in very warm situations es: winter with high heating inside.

### International Stats WHO

World Health Organization Health Topics ~

Countries ~

Newsroom ~

Emergencies ~

### **Ageing and health**

1 October 2024

#### **Key facts**

- All countries face major challenges to ensure that their health and social systems are ready to make the most of this demographic shift.
- In 2050, 80% of older people will be living in low- and middle-income countries.
- The pace of population ageing is much faster than in the past.
- In 2020, the number of people aged 60 years and older outnumbered children younger than 5 years.
- Between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12% to 22%.

In 2019, the number of people aged 60 years and older was 1 billion. This number will increase to 1.4 billion by 2030 and 2.1 billion by 2050.

# International Stats CDC



Older Adult Fall Prevention

EXPLORE TOPICS ~

Q SEARCH

MAY 9, 2024

### Older Adult Falls Data

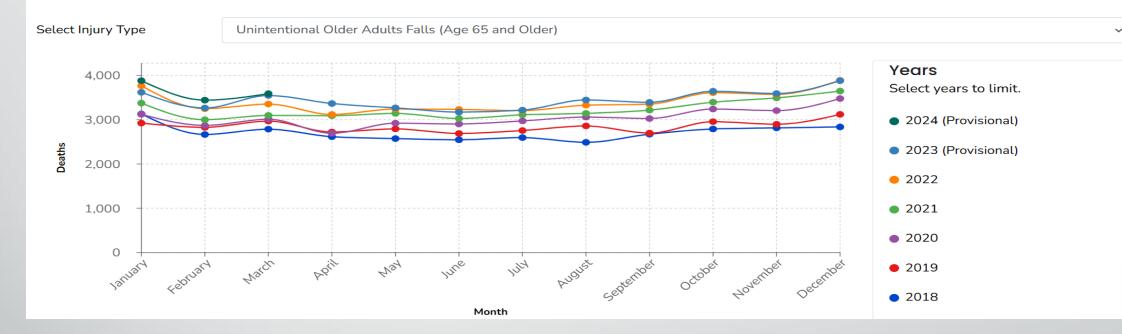
#### AT A GLANCE

Falls are the leading cause of injury for adults ages 65 years and older. Older adult falls are common, costly, and preventable.

Falls are the **leading cause of injury** for adults ages 65 years and older Over **14 million**, or **1 in 4** older adults report falling every year

# International Stats -USA

#### Provisional and Final Fatal Injury Data by Month, United States



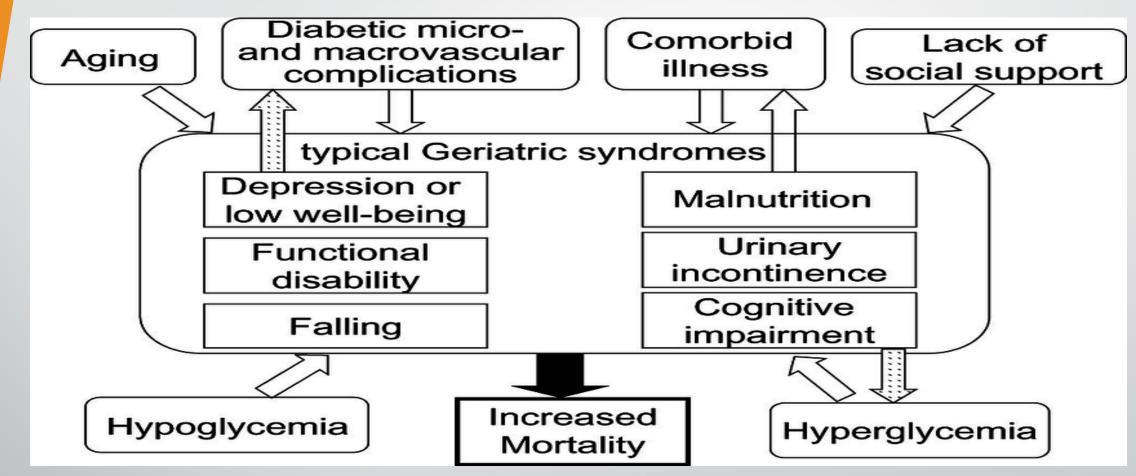
As of the latest provisional data from **2023**, there are **41,409** deaths reported based on death certificate data received, but not yet fully reviewed, by CDC"s National Center for Health Statistics (NCHS)

# Common Health conditions WHO

As people age, they are more likely to experience several conditions at the same time

- Diabetes
- Dementia
- Depression
- Hearing loss
- Osteoarthritis
- Back and neck pain
- Cataracts and refractive errors
- Chronic obstructive pulmonary disease

# **Geriatric Syndromes**



Older age is characterized by the emergence of several complex health states, often as the consequence of multiple underlying factors and include frailty, urinary incontinence, falls, delirium and pressure ulcers

### CDC

### **National Center for Health Statistics**

NCHS Data Brief ■ No. 347 ■ August 2019

### Prescription Drug Use Among Adults Aged 40–79 in the United States and Canada

Craig M. Hales, M.D., M.P.H., Jennifer Servais, B.Sc., Crescent B. Martin, M.P.H., M.A., and Dafna Kohen, Ph.D., M.Sc.

Nearly 7 in 10 adults aged 40–79 used at least 1 prescription drug in the US (69.0%) and Canada (65.5%)

Around 1 in 5 used at least 5 prescription drugs (22.4% in the United States and 18.8% in Canada)

### **National Center for Health Statistics**

Among adults aged 40–59, the most commonly used drug types in the US were:

- Antidepressants
- lipid-lowering drugs
- ACE inhibitors

#### In Canada, they were:

- Analgesics
- Antidepressants
- Lipid-lowering drugs

### **National Center for Health Statistics**

#### Among adults aged 60–79, the most commonly used drug types in the US were:

- Lipid-lowering drugs
- Antidiabetic agents
- Beta blockers

#### In Canada they were:

- Lipid-lowering drugs,
- Analgesics
- Proton pump inhibitors

### UK Public Health England

#### 🖾 GOV.UK

Q

 $\underline{\mathsf{Home}} > \underline{\mathsf{Health}} \text{ and social care } > \underline{\mathsf{Public health}} > \underline{\mathsf{Health}} \text{ improvement } > \underline{\mathsf{Drug misuse}} \text{ and dependency}$ 

> Prescribed medicines review: report



# Research and analysis Prescribed medicines review: summary

Updated 3 December 2020

**11.5 million** adults in England (**26%** of the adult population) received, and had dispensed, one or more prescriptions for any of the medicines within the scope of the review

## UK Public Health England

The totals for each medicine were:

- Antidepressants 7.3 million people (17% of the adult population)
- Opioid pain medicines 5.6 million (13%)
- Gabapentinoids 1.5 million (3%)
- Benzodiazepines 1.4 million (3%)
- Z-drugs (non Bz) 1.0 million (2%)

# UK Age UK



### The State of Health and Care of Older People, 2023

On average, individuals aged 60 or over are prescribed multiple medications to manage chronic conditions such as diabetes, hypertension, and cardiovascular diseases

For those aged 85 and older

**96%** are taking at least **1** prescribed medication

**56%** are taking at least **5** medications

# UK Age UK

The most commonly prescribed medications for the elderly include:

- Analgesics: For pain management.
- Antidepressants: To manage depression and anxiety.
- Antidiabetic Agents: Including metformin and insulin.
- Antihypertensives: Used to manage high blood pressure.
- Proton Pump Inhibitors (PPIs): For gastrointestinal issues.
- Lipid-Lowering Drugs: Such as statins, to manage cholesterol levels.

# IMPACT

These statistics highlight the significant reliance on prescription medications among the elderly, emphasizing the importance of proper medication management and monitoring to ensure safety and efficacy in general and specifically while doing exercise

#### International Patient Safety Goals (IPSGs)

The Targeted Solutions Tool® (TST®) can help JCI-accredited organizations meet IPSG requirements.



Joint Commission International Joint Commission International\* (JCI) is a division of Joint Commission Resources, Inc.\*, a wholly controlled not-for profit affiliate of The Joint Commission, JCI provides leadership in international health care accreditation and quality improvement.



### **Goal Six**

Reduce the risk of patient harm resulting from falls.

### IPSG.6 Reduce the Risk of Patient Harm Resulting from Falls

- Implements a process for the initial assessment of patients for fall risk and reassessment of patients when indicated by a change in condition or medications, among others.
- Measures are implemented to reduce fall risk for those assessed to be at risk.
- Measured are monitored for results, both successful fall injury reduction and any unintended related consequences.

### **Emergency Care Research Institute**



A complimentary publication of The Joint Commission Issue 55, September 28, 2015

Preventing falls and fall-related injuries in health care facilities

Falls with serious injury are consistently among the **Top 10 sentinel events** reported to the Joint Commission's Sentinel Event database,

Approximately 63% of falls resulted in death, while the remaining patients sustained injuries.

ECRI reports a significant number of falls occurring in non-hospital settings

# **Tools used in preventing falls and fallrelated injuries in health care facilities**

#### AHRQ (Agency for Healthcare Research and Quality) toolkit: Preventing Falls in Hospitals

This toolkit focuses specifically on reducing falls during a patient's hospital stay.

#### ISCI (Institute for Clinical Systems Improvement) : Prevention of Falls (Acute Care)

This protocol includes recommendations for a falls and injury risk assessment and focuses on strategies and interventions for the prevention and eventual elimination of falls with injury among adult patients in acute care settings.

#### IHI (Institute for Healthcare Improvement): Transforming Care at the Bedside How-to Guide Reducing Patient Injuries from Falls

This resource focuses on approaches to reduce physical injury associated with patient falls occurring on inpatient units.

# **Tools used in preventing falls and fallrelated injuries in health care facilities**

#### VA-NCPS (Veteran Affairs -National Center for Patient Safety): Falls Toolkit

Staff from the VA-NCPS worked with the Veterans Integrated Service Network 8 Patient Safety Center of Inquiry (VISN 8 PSCI), part of the James A. Haley Veterans' Hospital in Tampa, and others to develop this toolkit, which is designed to aid facilities in developing comprehensive falls and injury prevention programs.

Available since 2004, this was the first national toolkit to focus on fall injury reduction, specifically hip fractures and head injury.

VA-NCPS (Veteran Affairs - National Center for Patient Safety) : Implementation Guide for Fall Injury Reduction

This guide is a focused version of **8 goals** to help prevent falls and fall-related injuries, continuing VA's national guidance to prevent moderate to serious fall-related injuries across settings of care.

This implementation guide is designed for administrative, clinical, quality and patient safety personnel in hospitals, **long-term care, and home care**, to further enhance the program's infrastructure and capacity to **fully implement a fall injury prevention program** 



Received: 7 March 2023 Accepted: 29 March 2023

DOI: 10.1111/jgs.18372

#### SPECIAL ARTICLE

Journal of the American Geriatrics Society

### American Geriatrics Society 2023 updated AGS Beers Criteria<sup>®</sup> for potentially inappropriate medication use in older adults

#### By the 2023 American Geriatrics Society Beers Criteria® Update Expert Panel 💟

The 2023 update of the AGS Beers Criteria® includes many modifications including a number of new and significantly modified criteria and many minor changes in formatting and wording to enhance clarity and usability.

AGS has released the 2023 AGS Beers Criteria® App as well as a pocket card, both of which can be accessed via <u>GeriatricsCareOnline.org</u>



British Geriatrics Society Improving healthcare for older people



### Comprehensive Geriatric Assessment Toolkit for Primary Care Practitioners

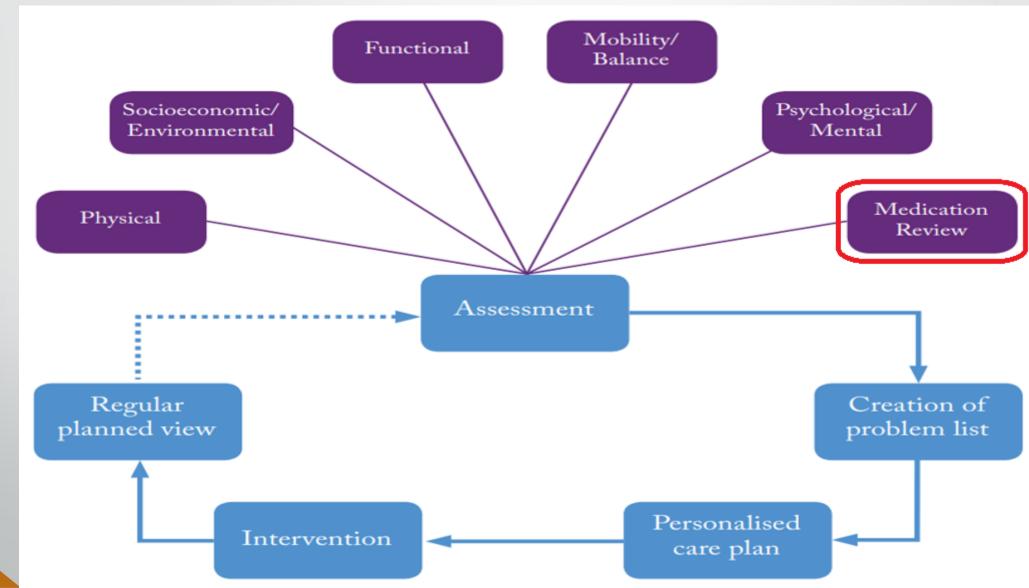
This toolkit is an introduction CGA in primary care settings.

It is divided into two parts.

Section 1 covers the basics of CGA in primary care

Section 2 relates CGA to specific clinical presentations that may be encountered in practice

### BGS Framework



### CDC



Centers for Disease Control and Prevention National Center for Injury Prevention and Control



2017

# **Medications** Linked to Falls

Review medications with all patients 65 and older. Medication management can reduce interactions and side effects that may lead to falls.

STOP medications when possible.SWITCH to safer alternatives.REDUCE medications to the lowest effective dose.

Review prescription drugs, OTC, and herbal supplements.

Some can cause dizziness, sedation, confusion, blurred vision, or orthostatic hypotension including:

- Anticholinergics
- Antihistamines
- Medications affecting blood pressure
- Muscle relaxants

# Check for psychoactive medications, such as:

- Anticonvulsants
- Antidepressants
- Antipsychotics
- Benzodiazepines
- Opioids

CDC

Sedatives-hypnotics

# CDC

**Develop a patient plan that includes:** 

Medication changes

Monitoring potential side effects.
 Implement other strategies including:

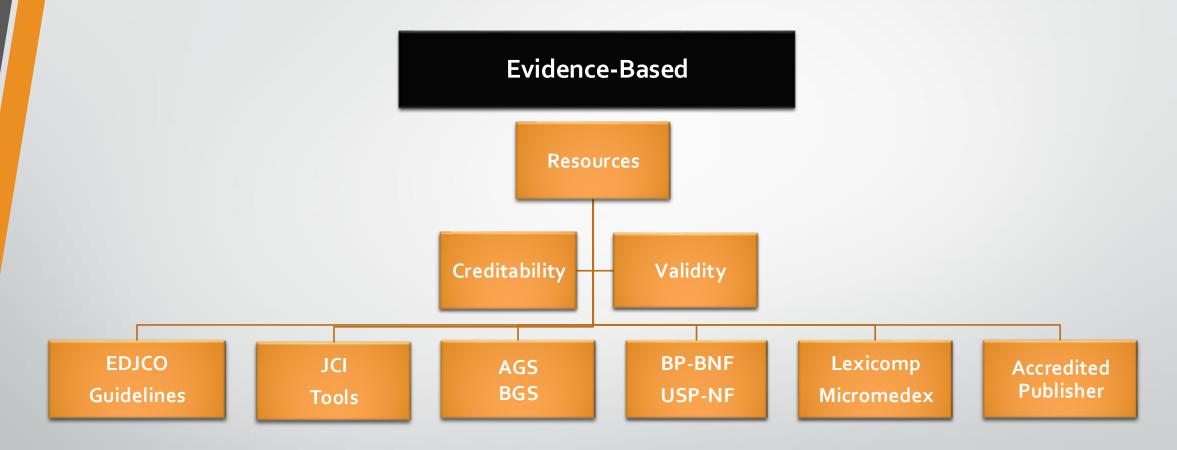
- Non-pharmacologic options to manage conditions
- Address patient barriers
- Reduce fall risk

# Linking Academic Knowledge with Practice Study Vs Profession

Theoretical	Practical
Theoretical knowledge is based on abstract concepts, principles, and ideas.	Practical knowledge is based on real-world experience and application.
Theoretical knowledge focuses on understanding concepts and principles.	Practical knowledge focuses on implementing those concepts and principles in real-world situations.
Theoretical knowledge is typically learned through reading, studying, and academic research	Practical knowledge is often learned through hands-on experience and experimentation.
Theoretical knowledge is often used to develop new theories or advance existing ones	Practical knowledge is used to solve real-world problems and create practical solutions.
Theoretical knowledge can be developed and discussed over an extended period, sometimes spanning decades	Practical knowledge requires immediate application to solve problems in the present.

#### **ENDLESS DEBATE**

### **Sports Pharmacist Interventions**



### **Prospective Approach (Clinical Sports Pharmacist)**

Criteria	PROACTIVE	REACTIVE
Fall Risk	Very Low – Healthy	Medium – Ambulatory (Moderate Condition)
Type	Low – Minor Condition	High Risk – Post Trauma (Severe Condition)
Fall	Nil – No History	Happened – Moderate Impact
History	Happened – No / Mild Impact	Happened – <mark>Sever Impact / Sentinel Event</mark>
Safe Falling	Dojo – Club	Clinic – Hospital
Program	Group	Individualized /Tailored
Candidate	IJF Academy	JCI – Fall Prevention Tools (AHRQ, ISCI, IHI,etc)
Assessment	EDJCO Guidelines	Relevant organizations (AGS, BCG)
Medical	Primary Care / Family Medicine	Primary Care / Family Medicine / Geriatrics
Referrals	Geriatrics	Orthopedic / Spinal / Physiotherapy /Others
Medication	Semi-Annually – Quarterly	Monthly - Weekly – Daily (according to case)
Reconciliation	Minor Changes	Major Changes ADRs - Interactions (DF/DS/DD)
Pharmaceutical	Limited – Acute Conditions	Broad Scope – Safe Falling Clinic (Outpatients)
Interventions	Minimum – Controlled Case	Maximum - Multidisciplinary Team (Inpatients)

### **Family Case**

#### **Discharge Summary**

Sex: Female Date of Birth: 04/07/1958 Phone: 0546429904

#### Care Providers

Admitting Physician -NAYEF MANSOUR ALSHAMMARI 395433 PSMMC

#### Reason for Admission

fall dowen , back pain 2 days ago . PT HTN

#### **Brief History**

66 years old female history of stroke arrhythmia HTN

4 days history of fall from stairs, slipped

#### Social History

<u>Alcohol</u> Never used, 10/30/2024 <u>Substance Use</u> Never, 10/30/2024 <u>Tobacco</u> Never smoker, 10/29/2024

#### Physical Exam

Vitals & Measurements

T: 36.4 °C (Oral) HR: 58(Monitored) RR: 20 BP: 115/70 SpO2: 96% HT: 159 cm HT: 159 cm WT: 66 kg WT: 66 kg WT: 66 kg BMI: 26 BMI: 26.11 Vitally stable alert, oriented , GCS 15/15 mild pain over the fracture rib site Abdomen: Soft and lax, not tender, not distended

#### Allergies

#### Zithromax

#### **Hospital Course**

patient admitted as a case of **splenic contusion and mildly displaced left 11th rib fracture** admitted for observation and pain control seen before discharge Doing fine Tolerating orally Mobilizing ready for discharge

#### Discharge Assessment/Plan

- insentive spirometer at home
- analgesia medications
- GS OPD after 4 weeks
- ED instructions given

#### Condition On Discharge

doing well



Discharge Orders/ Follow up Instructions

GS follow up after 4 weeks

### References

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- https://www.who.int/health-topics/ageing#tab=tab\_1
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- <u>https://www.jointcommissioninternational.org/-/media/jci/jci-documents/news-and-support/coronavirus/jci\_ipsg\_infographic.pdf</u>
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# Questions? drjudoka@gmail.com

