# ME-JAA Middle East Journal of Age and Ageing

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## **Editorial**



Dr Abdulrazak Abyad

Middle East and North Africa (MENA) is one of the cradles of urban culture and civilisation. In this region, Judaism, Christianity, and Islam arose. MENA's influence extends beyond its vast oil reserves. It occupies a strategically vital position between Asia, Africa, and Europe. As the Region reaches the third millennium, its issues will be exacerbated by its rapid population expansion. Therefore, by the end of the century, there will be more people in the MENA region than in China, whose population is projected to continue to decline to just over one billion, and more than in Europe, whose population is projected to decline by roughly 10 percent by 2100.

Geriatrics & Gerontology is still a relatively new profession for medical school graduates in the Middle East, and other specialties have no interest in it. Six nations, including Bahrain, Egypt, Iraq, Jordan, Lebanon, Morocco, and the Syrian Arab Republic, have acknowledged geriatrics as an independent specialty. Even though there are only two licensed geriatric physicians in Jordan, geriatrics is recognized as a specialty.

In a significant number of Arab nations, geriatricians are genuinely scarce. Except for Bahrain (one geriatrician for every 8,250 people 65 and older) and Lebanon (one geriatrician for every 20,000 people 65 and older), the number of geriatricians in most Arab countries does not surpass one for every 100,000 older people. This is in contrast to the United States, where there is one geriatrician for every 5,000 to 7,000 senior citizens. Due to a dearth of skilled experts, older patients are often treated by general internists or general practitioners who lack the knowledge and training to address the unique issues and needs of senior patients.

The following questions are time-sensitive: Are the health professions in the region capable of meeting the current and future health care needs of the elderly? Are health profession faculties prepared to instruct geriatrics and gerontology? Does the subject of aging appear in the curriculum of elementary and post-secondary education? Was specialized research on aging being conducted? Do health professionals in the region choose to care for the elderly? Are appropriate professional and financial benefits supplied to those who care for the elderly?

Geriatric medicine education has historically been underrepresented in the medical colleges of the region. Significant deficiencies exist in terms of what is taught, when it is taught, and how it is taught. As such, it is appropriate that the Middle Academy for Ageing Medicine (MEAMA) was established in 2002 to promote the growth of health care services for the region's elderly inhabitants. It was founded by a consortium of Middle Eastern and European academics and instructors. MEAMA is modeled after the European Academy of Ageing Medicine and aims to build a center for teaching and training in the field of aging in the Middle East.

The Abyad Medical Center and the Middle East Longevity Institute were instrumental in the development of the inaugural course of the MEAMA. Several official federal, regional, and international organizations of renown have contributed to the establishment of the school over the years. Recent collaboration between MEAMA and the International Institute on Aging-United Nations-Malta. This intense study course commenced with four sessions, each of which addressed vital health-related themes in aging. It is designed for physicians, nurses, social workers, and other health care professionals responsible for the treatment of older individuals. The overall program aims to improve the scientific, clinical, educational, and administrative capacities of medical gerontology. To date, seven postgraduate cycles have been completed, resulting in the education of 1,500 healthcare professionals.

The Tunisian Geriatric Association (ATG) has, in conjunction with MEAMA, created the first intense postgraduate course in geriatric medicine that stimulates enthusiasm and geriatric expertise. The program consists of four two-day sessions that must be completed within one year. In addition to a number of Euro-Med conferences, the Tunisian Geriatric Association has conducted seven cycles of training due to the success of the initial course.

In national research agendas and national funding agencies, the importance of research on aging is inadequate. With the exception of Lebanon, Egypt, and, to a lesser extent, Tunisia, studies and publications on the topic are limited in MENA nations. Additionally, there is a need to promote, support, and fund research on older persons among regional scholars. This is the reason why we publish the abstracts of young researchers from the region for free in order to support their work in the field.

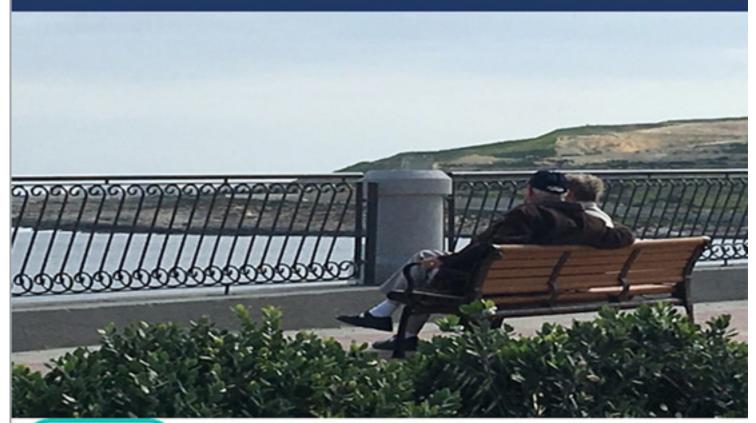
In this issue we have abstracts from the MEAMA Postgraduate Course session 3 & 4 that was presented during the online session by member of the MEAMA network who did their training either with MEAMA or with STG. In addition to the English abstracts from the the Annual Geriatric Meeting STG and the third Euro-Geriatric Meeting organized by the Tunisian Geriatric Society (STG), CNG, 2022.

## CONTINUOUS PROFESSIONAL DEVELOPMENT TRAINING PROGRAMMES

in

**Geriatrics & Gerontology** 

Advanced Postgraduate Course in Geriatrics & Gerontology Diploma in Dementia Care Special Training Program MENA Regional Conferences









### The World is Ageing

The population of the world is ageing rapidly, both in its absolute numbers and in its percentage relative to the younger population (United Nations Department of Economic and Social Affairs [UNDESA], 2019). In 2018, for the first time in history, persons aged 65 years or over, worldwide outnumbered children under age five. The Middle East and North Africa (MENA) is one of the cradles of civilization and of urban culture. Judaism, Christianity, and Islam originated in the region. The influence of MENA spreads beyond its rich oil fields. It seizes a tactically significant geographic position between Asia, Africa, and Europe. There are major demographic changes affecting the MENA Region. These changes will offer social and economic opportunities or some powers and harshly challenge others.

In countries like Lebanon, the proportion of older persons is already relatively high and will double by the year 2050. Other countries such as Qatar, Kuwait, and the United Arab Emirates (UAE) should anticipate a fivefold or greater increase in the proportion of their geriatric population and should allocate resources accordingly. In the whole MENA Region, it is expected that the older population will triple. Therefore, the region will develop rapidly ageing populations within the next few decades.

Older adults in the Arab world are expected to increase in number and as a percentage of the general population. With an increasing prevalence of non-communicable diseases and their associated risk factors and consequences, the emerging health profile of older Arabs in many ways is reflecting that of older adults in the West.

A serious disparity exists between the growing ageing population and the number of health care providers being trained to meet the unique health care needs of older adults. This problem is both in developed and developing world. The key to alleviating the shortage, according to researchers, is for medical schools to lead the change in giving geriatric medicine the attention it deserves, cultivating programs where there are none, improving existing ones. There is a major deficiency in the number of physicians trained in geriatrics, in addition to limited paramedical personal trained in the field.

With this in mind, MEAMA in collaboration with INIA, and MENAAA and through the administration of Abyad Medical Center is organizing on going Continuing Professional Development (CPD) Training Program in the following areas:

- Advanced Postgraduate Course in Geriatrics & Gerontology
- Diploma in Dementia Care
- Special Training Program
- MENA Regional Conferences

The above CPD Training Programs are presented in greater detail in this document.

## Middle East Academy for Medicine of Ageing-MEAMA-

The Middle East Academy for Medicine of Ageing was founded in 2002 to stimulate the development of health care services for older people in the region. It was established by a number of professors and teachers from the Middle East and Europe. The Model of MEAMA was taken from the European Academy for Medicine of Ageing (EAMA). The mission of MEAMA is to create a hub for education and training in the field of ageing in the Middle East.

Abyad Medical Center and Middle East Longevity Institute were instrumental in organizing the first course of the MEAMA. Over the previous years, several reputable official governmental, regional and international organizations helped in the development of the academy including The Health Ministers' Council for the Cooperation Council States, Ministry of Health in Bahrain, The European Academy for Medicine of Ageing, The European Union of Geriatric Medicine Society, the Geriatric Medicine Section of the European Union of Medical Specialists, the International Association of Gerontology and Geriatrics, medi+WORLD International, Multimedia Medical University, Al Jinan University, Azm & Saade Association, Hamad Medical Corporation, National Guard National Guard Health Affairs -King Saud Bin Abdulaziz University for Health Sciences and others. In 2018 MEAMA entered in close collaboration with International Institute on Ageing-United Nation-Malta. All certificates and Diploma carries the three logos of MEAMA, INIA, and MENAAA.

Since 2018 all sessions of MEAMA will carry the logo of International Institute on Ageing –United Nation, Malta-(INIA).

Since 2021 MEAMA became the Satellite center for INIA for the Middle East and North African Countries

### International Institute on Ageing -United Nations-Malta (INIA)

Malta was first to raise the question of Ageing as a matter of international concern at the United Nations in 1968. As a result, in 1982, the General Assembly held the World Assembly on Ageing. In its Resolution 37/51 it recommended inter-alia the promotion of training and research, as well as the exchange of information and knowledge in order to provide an international basis for social policies and action. It unanimously and without reservation, adopted the Vienna International Plan of Action on Ageing which remains the cornerstone of worldwide policy on Ageing. In this respect, the Plan recommended that practical training institutes should be promoted and encouraged so that they act as a practical bridge between and among high-income and low-income countries.

The UN Economic and Social Council, by its Resolution 1987/41 recommended to the UN Secretary-General, the establishment of the International Institute on Ageing. On the 9th October 1987, the United Nations signed an official agreement with the Government of Malta to establish the International Institute on Ageing as an autonomous body under the auspices of the United Nations. The Institute was inaugurated on 15th April, 1988 by the then United Nations Secretary-General, H.E. Mr. Javier Perez de Cuellar.

The Institute operates under the guidance of an International Board consisting of nine members. The Chairperson of the Board and six members are appointed by the Secretary-General of the United Nations, with due regard to the principle of equitable geographical distribution, and two members are appointed by the Government of Malta. The term of office of the Board is that of three years.

### **INIA and MEAMA Collaboration**

The collaboration started in 2018 by a memorandum of understanding for three years. At the end of three years fully aware of the excellent work done by the Middle-East Academy for Medicine of Ageing (MEAMA), for the Region in the field of ageing. INIA designate this academy as its Satellite Centre for the Middle East and North African countries covering Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, West Bank and Gaza, and Yemen.

The International Institute on Ageing United Nations - Malta (INTA) and the Middle-East Academy for Medicine of Ageing (MEAMA) have agreed as follows:

The scope and function of INIA's Satellite Centre for the Middle East and North African countries is as follows. MEAMA shall become one of the partners of INIA's worldwide collaboration network of organizations engaged in various forms of

- activities in the field of ageing;
  b) promote INIA's training programs both those held in Malta itself and those to be held within the Middle East and North African countries;
- c) promote closer collaboration between INIA on one hand and the Middle East and North African countries on the other in the field of ageing;
- d) promote advocacy within the region in the field of ageing;
- e) promote and co-ordinate in-situ training programs in ageing in the Middle East and North African countries;
- f) identify prospective suitable candidates for INIA's training programs.

### Middle East & North Africa Association of Ageing & Alzheimer's (MENAAA)

The Middle East & North Africa Association of Aging & Alzheimer's is a Regional Association with a membership base comprising, NGOs, academics, industry, and individuals from the MENA and elsewhere. MEAAA (Middle East Association on Aging & Alzheimer's) was first established in Lebanon in July 2005. It was established to improve the quality of life of the Region's older people by sharing research results on health, welfare, and rights, functioning as a Regional network to achieve the goal. MEAAA has contributed to and organized five regional Middle East Congresses on Age & Alzheimer's, the last one was held in Tripoli in April 2018. There are current existing regular members and organization members.

Recently we felt that there is a need for a wider umbrella to address the increased need of aging in the MENA Region. Therefore the name and the structure of MEAAA will be changed. The new name is Middle East and North Africa Association of Aging & Alzheimer's (MENAAA).

## Advanced Postgraduate Course in Geriatrics & Gerontology

This intensive study course composed of four sessions is directed towards physicians, nurses, social workers, and health care of-ficers, responsible for the health care of older people, in addition to faculty members of medical, nursing, social and physiotherapy schools interested in developing the field of geriatrics and gerontology. The course can also be attended by junior potential academic staff, working in other fields (internal medicine, sub-specialties, biology) involving the ageing process and care of elderly people. The complete program aims to increase scientific, clinical, educational and managerial competencies in medical gerontology. Participants that successfully complete the four sessions will receive a postgraduate certificate issued by the Group of Executive Board of the MEAMA. The Advanced Postgraduate course in Geriatrics & Gerontology consist of 4 sessions over 2 years. So far the academy had done seven Advanced Postgraduate Courses in the field of Age & Aging. The course is directed towards physicians, nurses, social workers, and health care officers, responsible for the health care of older people. In addition to faculty members of medical, nursing, social and physiotherapy schools interested in developing the field of geriatrics and gerontology. The complete program aims to increase scientific, clinical, educational and managerial competences in medical gerontology. A certificate is issued by the Group of Executive Board of the MEAMA after successfully conclusion of the four sessions.

#### Rationale

The World Health Organisation (WHO) has recently published a document which describes the plan for a Decade of Healthy Ageing 2020-2030. This comes as the second plan of the WHO Global strategy on ageing and health, which builds upon the United Nations Madrid International Plan of Action on Ageing (United Nations, 2002). This also coincides in tandem with the United

Nations Agenda 2030 on Sustainable Development and the Sustainable Development Goals (ibid., 2015). With advancements in healthcare, longer lives have become one of the most remarkable achievements to human kind. People are living longer and enjoying longer years. The number of proportion of people above the age of 60 years globally is increasing and the fact that it is occurring at an unprecedented pace, set to accelerate in the coming decades, especially in countries of transition and of low economies (World Health Organization, 2020). Undoubtably, an ageing population is set to continue to affect all spheres of society including labour and economic markets, the demand of goods and services such as health, housing, social protection, transport, education, information and communication, long- term care as well as family structures and intergenerational ties (ibid.). People who experience extra years in good health are able to further participate in society and continue to be an integral part of their families and communities, and therefore strengthen societies. However, if these added years are spent in poor health, dependency and social isolation, then this would have great implications not only on the older person but for society at large (Coll, 2019).

Good health adds to life to years. In ensuring this, qualified nurses and all health care providers in both health and social care settings are required to be adequately prepared to provide high quality care for older adults. This course provides qualified nurses and health care providers, with specific competencies and skills in the care of older adults as well as more general competencies, that will contribute towards their academic and professional development. The programme spans across preventive, medical, rehabilitative and palliative aspects of care across a range of settings, including community, hospital and long-term settings. Relevant topics such as dementia, nutrition and pharmacology are addressed.

### Diploma in Dementia Care

The World Health Organization (WHO) (2017) Global action plan on the public health response to dementia 2017-2025 reported that globally dementia is a major cause of disability and dependency, affecting memory, cognitive abilities and behavior which significantly interferes with a person's ability to maintain daily function especially activities of daily living. The impact of dementia is substantial not only in financial terms, but also in human costs as this is largely affecting individuals, families, societies and countries worldwide.

Abyad Medical Center, The Middle East Academy for Medicine of Ageing and the Middle East & North Africa Association on Ageing & Alzheimer's announces the Diploma in Dementia care for the years 2022/2023.

The curriculum developed for the Diploma will be shared in two Region of the World, the MENA and the Caribbean. The two Regions will be independent in administering the Diploma however they will collaborate and exchange resources that will make the curriculum and the Diploma a strong initiative in the field of Dementia.

The diploma is designed for health and allied care practitioners, including but not limited to physicians, nurses, social workers, psychologists, physiotherapists, occupational therapists, and health care officers. It is meant for those currently in those professions, those training for those professions, those offering training for those professions and interested in upskilling for provision of services. The diploma is composed of four sessions across which 10 modules are divided. The content aims to increase scientific, clinical, educational and managerial competencies in dementia care.

The Kuwait Times stated recently that all Gulf countries, in addition to Iraq and Jordan, are among the top 10 countries for dementia growth, with an increase of more than 500 percent over 2019 levels. The study predicted that the countries of the Middle East will be at the forefront of the rise in dementia cases within the next three decades, as the region is forced to confront the health effects of its aging population. Researchers said that Qatar could witness the largest increase in the world with an increase in cases from 2019 to 2050 by 1926 percent, followed by the UAE with 1795 percent, then Bahrain, which could also see an increase in cases by 1084 percent, and in Oman it may grow At a rate of 943 percent, in Saudi Arabia it is 898 percent, while the percentage in Kuwait may reach 850 percent ... The Times Kuwait, 2022 - online article

The WHO (2017) estimates that by the year 2030 there would be a need of 40 million new health care professionals globally with around 18 million additional health care workers alone required in low-resource settings. In addressing dementia, it is therefore crucial to expand the health and social care workforce with the appropriate knowledge, skill and protocol on how to address, prevent, diagnose, treat and manage the care for persons living with dementia.

The proposed Diploma in Dementia Care include 4 sessions over one year.

#### Rationale

People living with Alzheimer's Disease and Related Dementias (ADRD), along with their caregivers, turn to trusted practitioners to understand the condition and the challenges they may face. Worldwide health and social care services and systems are poorly equipped to offer quality dementia care. There are critical gaps in dementia education and training.

The MENA Region faces special challenges. With the demographic transition, most countries in the region have been and will continue to experience longer lifespans of their populations. The region is witnessing rapid rise of non-communicable disease including dementia. These factors along with many others likely contribute to the current prevalence of dementia among those 60 and older in MENA Region.

There is therefore an urgent need to equip health and allied care practitioners with knowledge and skills that will allow them to provide the informed, quality, evidence-based care that is needed to address this burden. The Diploma in Dementia Care Improvement will offer one route for such education and training.

## **Requirements for Diploma Completion**

At the end of the course of four sessions, across which 10 modules are divided, participants will receive a postgraduate Diploma in Dementia Care and will be graduated as

'members of the MENAAA & MEAMA' A network to stimulate the development and maintenance of services for health related problems in elderly people in the Middle- East & North Africa Area

| Session | Date               | Modality  | Modules | Location     |
|---------|--------------------|-----------|---------|--------------|
| 1       | August 26-27, 2022 | Virtual   | 1-2     | N/A          |
| 2       | Oct , 2022         | In Person | 3-5     | Lebanon      |
| 3       | November 2022      | Virtual   | 6-7     | N/A          |
| 4       | April 2023         | In Person | 8-10    | Dubai/Kuwait |

#### **Content Areas**

The diploma content includes training on the science of Alzheimer's Disease and Related Dementias in older persons. This includes neurology, biology, epidemiology, and other aspects relevant to improving outpatient care to facilitate sustainable services and systems of care that revolve around community services.

The 10 modules which will be divided into four sessions are tentatively organized as follows:

- 1: Overview of Dementia
- 2: Epidemiology
- 3: Detection and Diagnosis
- 4: Medical Treatment of Dementia: Current and Future
- 5: Non-Pharmacological Management of Dementia
- 6: Ethics
- 7: Palliative and End-of-Life Care
- 8: Dementia Care Pathways
- 9: Facilitating Team-Based and Person-Centered Care
- 10: Caring for and Interacting with Caregivers

### **Program Structure**

The Diploma encompasses 10 modules delivered across two virtual and two in person sessions. Each of the two in person sessions will take place over two days. The target number of recipients for the in-person session will be 70-80 health and allied care practitioners. A nominal registration fee for the in person session will be charged to participants.

CEUs/CMEs will be allocated for each module. The same modules will be repeated every year. In this way, if a participant is unable to complete any module, s/he can pick up the session the following year. If all modules are taken as offered during a specific cohort's offering (e.g. cohort 1 August 2022-April 2023), the diploma will be completed within a year, and successful completion of the diploma will be determined by the timely, thorough, and accurate completion of participation in live sessions (whether virtual or in person) which will include lectures, case discussions, and individual

## **Session One Evaluation**

The first session that covers the two modules

#### 1-Overview of Dementia &

## 2-Epidemiology & Demographic Introduction to dementia

The session took place between 26-27 August, 2022 Virtually

### **Evaluation Report of the First Session**

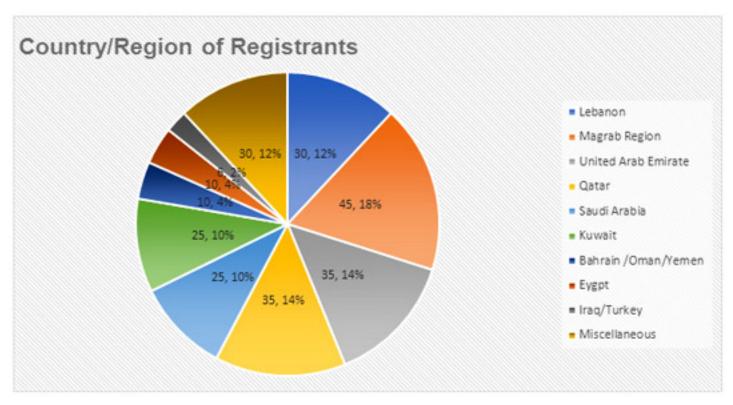
## 1. Attendance Distribution

The total number of registration was high reaching 274 registration, and the number of people that competed the two days was 95 participants.

| Day | Date           | Registered | <b>Participants</b> |
|-----|----------------|------------|---------------------|
| 1   | 26-August 2022 | 234        | 95                  |
| 2   | 27-August 2022 | 270        | 100                 |

## 2.Country/Region of Registrants

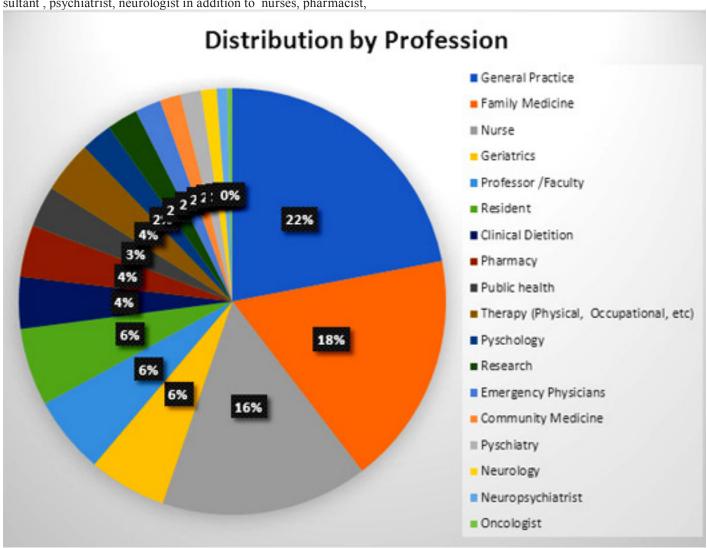
There was a great response from most countries in the MENA region in addition to participants from countries in Asia, Africa, Europe and North America



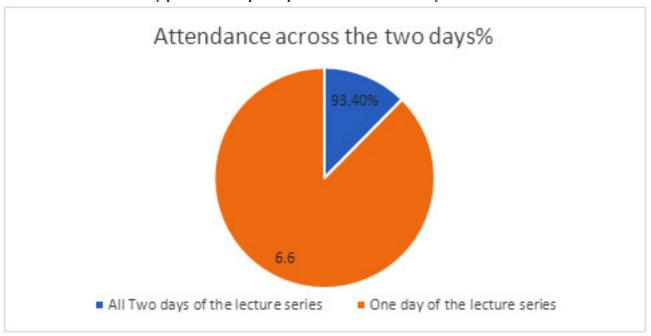
The Magrab region include Tunisia, Morocoo & Libya. The miscellaneous countries include Africa, Asia, North America, and Europe.

## 3. Distribution of attendee professional background

The distribution of attendee covered physicians across different specialty including general practitioners, family physicians, consultant, psychiatrist, neurologist in addition to nurses, pharmacist,



As for the attendance ninety percent of the participants attended the two days



## 5. Evaluation of The Session

## **A-Overall Rating**

The session was highly appreciated by participants and on the question whether you learned from the session the response was 100 % yes

## How do you rate the session?

The rating was either excellent, very good, good, and average



## Did you learn from the session?

The answer here was 100 percent yes for both day 1 and 2.

# Diploma In Dementia Care Session 1 –Overview of Dementia /Epidemiology & Demographic 26-27 August, 2022 4-8 pm Lebanon Time (Virtual)

| Day 1: Overvie | w of Dementia  |                                     |  |
|----------------|--|-------------------------------------|--|
| 04:00-04:30    | Normal ageing and cognitive functioning                                | Dr. Salwa Al suwaidi -UAE           |  |
| 04:30-05:00    | Normal ageingvs minimal cognitive impairment                           | Pr. Maurits Vandewoude-Belgium      |  |
| 05:00-05:30    | Dementia as a Syndrome   | Pr. Hala Sweed-Eygpt                |  |
| 05:30-06:00    | Most Common type of Dementia   | Dr. Marwan Ramadan- Qatar           |  |
| 06:00-06:30    | Riskfactors for Dementia   | Pr. Faisal Alnasir-Bahrain          |  |
| 06:30-07:00    | Early Stage Dementia   | Christian Vella-Malta               |  |
| 07:00-07:30    | Middle Stage Dementia  | Dr. Hashim Bulbaid-Saudi Arabia     |  |
| 07:30-08:00    | Late Stage Dementia  | Dr. A. Abyad-Lebanon                |  |
| Day 2: Epidem  | iology, Demographic, and Societal Impact                               |                                     |  |
| 04:00-04:30    | Population Ageing in the MENA Region                                   | Dr. A. Abyad -Lebanon               |  |
| 04:30-05:00    | Dementia : Global and MENA trends                                      | Dr. Hamed Al Sennawi - Oman         |  |
| 05:00-05:30    | Young Onset Dementia   | Pr. MohamudA. Verjee- Qatar         |  |
| 05:30-06:00    | Intellectual disability & Dementia                                     | Dr. Ali Alqattan-Kuwait             |  |
| 06:00-06:30    | WHO Global Action Plan on Dementia                                     | Dr. I. Govia - Jamaica              |  |
| 06:30-07:00    | Impact of Dementia on Healthcare System, Public<br>& Personal Finances | Dr. Mohammed Basheikh, Saudi Arabia |  |
| 07:00-07:30    | Soci etal Burden   | Dr. Marwan Ramadan- Qatar           |  |
| 07:30-08:00    | Dementia Friendly Society  | Rosette Farrugia-Bonello-Malta      |  |
|                |  | <u> </u>                            |  |

This educational program was made possible thanks to sponsorship from Roche. All educational content is independent from Roche.

## **MENA Regional Conferences**

The First Middle East Congress on Ageing took place in Istanbul Turkey between March 15-19, 2006. Under the auspices of the Turkish Prime Minister Recep Tayyip Erdogan. The congress was organized with full support of the Turkish Government and full collaboration of the Middle East Association of Aging and Alzheimer's. MEAAA was one of the main organizer that helped in establishing a strong Scientific committee from the Middle East.

The First Middle East Aging Congress inspired from the recommendations stressing the need to develop "Regional Action Plans for Aging" arising as the outcome of the UN 2nd World Congress on Aging, the European Federation of the Elderly Migrants (ERFEM) took the first steps and started working to address the subject matter of the "International Middle East Congress on Aging" within a broad framework and with a multidisciplinary approach. As a result of the talks held with officials in Turkey and in various European Countries, and due to the general tendency that Turkey would be a more suitable place for such a Congress, the congress organization efforts are now being carried out at a broader dimension with the cooperation of ERFEM, the Turkish Geriatrics Foundation (TÜGEV), Social Services and Child Protection Agency (SHÇEK), the Greater Municipality of Istanbul (IBB), and the Middle East Association on Aging and Alzheimer MEAAA.

The Second Middle East Congress on Age and Ageing-MECAAA- took place in Tripoli ,Lebanon between 6 to 8 November 2009: Challenges in Geriatric Care held under patronage of the President of the Republic of Lebanon, General Michel Sleiman, and with participation of the Middle East Association on Age, Aging & Alzheimer (MEAAA), the Health Ministers' Council for Cooperation Council States, Middle East Academy for Medicine of Ageing (MEAMA), Al-Jinan University – Lebanon, Azm & Saade Association, Safadi Foundation, Lebanese order of physicians Tripoli-Lebanon, Social Services Association, Middle East Network on Aging research (MENAR), Abyad Medical Center, Multimedia Medical University – Australia, Middle East Longevity Institute and Welfare Association for the Assistance of the Elderly – Lebanon. The conference hosted 40 regional and international speakers and Tripoli Declaration was issued after the conference.

The Third Middle East Congress on Age, Ageing and Alzheimer's: Meeting Challenges of Mental Illness in Elderly was held in Riyadh Between 11-14 March 2012. The conference was under the Patronage of National Guard Health Affairs, King Saud Bin Abdulaziz University for Health Sciences: the Postgraduate center in Riyadh and Middle East Academy for Medicine of Aging. The Fourth Middle East Congress on Age and Ageing: Meeting the Challenge of Multi—morbidity took place Jeddah Dec 6-8, 2016. Under the patronage of his Excellence, the Chief Executive office, MNGHA, Presidnet, King Saud Bin Abdulaziz University for Health Science: Dr Bandar Al Knawy.

The 5th Middle East Congress of Age, Ageing, and Alzheimer's was held at Beit Al Fan in Tripoli between 12 to 14th April. 2018. The opening ceremony was under the patronage and in the presence of his excellence Prime Minister Najib Mikati who welcomed the guests at the Fifth Middle Eastern Medical Geriatric Conference on "the Latest Challenges & Development of the Elderly People and Dementia Diseases". He added that the conference brings together experts from different university hospitals across Europe and the Arab world to discuss concrete issues related to the medical, human and social impact of Dementia on elderly people. This medical conference will not only focus on the scientific cause's symptoms and treatment of Dementia but will also focus on the crucial importance of the human and psychological aspects of this disease among elderly people. There were 18 countries that participated in this landmark event in the region. In addition to 20 international, regional and local speakers well known in their field. The exhibition provided the opportunity to meet experts and professionals, to share ideas and experiences with colleagues from around the world, to learn about projects and techniques from five continents and to strengthen the formal and informal ties between professionals.

### **Special Training Program**

The Ministry of Health in Kuwait predicting the challenges ahead asked MEAMA in collaboration with INIA to organize special training program in Kuwait for primary health care workers in 2018-2019. The course was designed in four sessions , the first two sessions were done in Sept 2018 and the third and fourth session were done in March, 2019. A total of 75 primary health care workers participated in the course and graduated to become member of the MEAMA network. In Each two sessions there were three faculty member from MEAMA in addition to the local speakers. 80 % of the participants being physicians and the rest are nurses, nutritionist, physiotherapist, pharmacists and social workers.

MEAMA was actively involved in launching a special cycle of courses in Tunisia in collaboration with the Tunisian geriatric society. So far seven postgraduate cycles are completed.

Abyad Medical Center
Abyad Medical Center is a multispecialty group practice with multiple medical and surgical specialties, in addition to specialized unit and services available through the center. The center started in 1997 and established itself as pioneer in providing quality services for the North of Lebanon.



Since its establishment the center has launched a large number of public campaign in the field of osteoporosis, obesity and other important topics for public education.

## The Center started as well several regional and international initiatives including:

- 1. Middle-East Academy for Medicine of Ageing
- 2. Middle-East Association of Age, Aging & Alzheimer's
- 3. The Center is the editorial office of five regional journals including:
- 1. Middle-East Journal of Family Medicine
- 2. Middle-East Journal of Age & Aging,
- 3. Middle East Journal of Nursing,
- 4. Middle East Journal of Business, and
- 5. Middle East Journal of Internal Medicine.
- 4. Middle-East Primary Care Research Network (MEPCRN)
- 5. Middle-East Network on Aging Research (MENAR)
- 6. Middle East Network on Elderly Care Services (MENECS)

Abyad Medical Center has been very active as well in organizing a number of conferences, at the international, regional and national level. In addition to a large number of public lectures and community activities.

Abyad Medical Center is the secretarial office for MEAMA, MENAAA and the above organizations.



Dear colleagues and friends,

It is a matter of great happiness that even while the cloud of the pandemic hovers above us, we are successfully organizing the most prestigious event of the Tunisian Geriatric Society (STG), CNG, 2022.

We hosted recently the Annual Geriatric Meeting STG and the third Euro-Geriatric Meeting, which has been scheduled in Hammamet city, Tunisia from 21-22 May 2022. With the support of the International Institute on Ageing (INIA). The International Congress, was an opportunity for many well-known geriatrics, gerontologists, policy decision-makers, professional activists, and researchers to share recent discoveries and study results.

The Congress theme: "Update in geriatric", the program was developed by a very dynamic scientific committee and has the goal to associate the pioneering in the field of geriatrics and gerontology. It was an opportunity to meet colleagues from European countries and to share experiences. This meeting provides updates on both clinical and fundamental in geriatric and gerontology, a panel and workshops to improve the care of seniors and a multidisciplinary forum for practitioners to present and discuss the practical challenges and the solutions adopted.

I thank each and every one who has been instrumental in Organizing this Conference, from all members of the STG and all the member of the Organizing Committee.

We are extremely proud of the official publication of the abstract book as a special issue of the Middle East Journal of Age and Ageing (ME-JAA). The Editor-in-Chief, Dr. ABYAD Abdulrazak, continues to guide the prestigious scientific journal that enjoys a place at the forefront of geriatric and gerontology science and play an active role in the development of academic standards and medical practice in the Arab region through the participation and the support of regional scientific events. The full program and all abstracts for oral and posters presentations can be found in this issue.

On behalf of the STG, I would like to thank you for your participation. We appreciate your interest in this inspiring, and enjoyable meeting.

Pr Sonia Ouali Hammami
President of the Tunisian Geriatric Society
President of the Maghreb Academy for Medicine of Ageing

## **Book of Abstracts**

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## Nursing students attitude towards aged patients

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### **ABSTRACT**

**Introduction:** Nursing attitudes acquired during their education and training had significant consequences on the practice of health care to elderly patients in the future.

**Aim:** to identify the attitudes of nursing students towards elderly.

Methods: It was a descriptive study (February-March 2022) among students in Higher Institute of Nursing in Sousse. Attitudes to elderly patient were measured using KA-OPS (Kogan attitudes toward older people scale). The questionnaire consists of two subscales -positive and negative attitude subscale - each of which awards from 17 to 85. High negative attitude was defined from 34 to 118 points, low negative attitude from 19 to 146, low positive attitude from 175 to 204.

Results: A total of 70 students have participated. Mean age was 22.32±2.13 with sex ratio (M/F=0.34).Mean of KAOPS score was107.75±7.49. Mean scores of negative and positive attitude were 54.02±7.01 and 53.72 ±5.35respectively. Gender, age, level of education and living situation or cohabitation with elderly relatives had not a significant difference with negative attitude and positive attitude. Single students and 1st level education were significantly associated with negative attitude (p=0.047; p=0.003). These factors were not significantly associated with positive attitude. Majority of students had a high negative attitude (92.9%), 7.1% had a low negative attitude and none of them had a positive attitude.

**Conclusion:** The majority of nursing students showed negative attitudes towards elderly people. Only single students and 1st level education were found to be significantly associated with higher negative attitude.

## Nursing students' experiences with elderly patients- Sousse- 2022

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## **ABSTRACT**

Introduction: Old people are considered vulnerable and fragile because of their increased risk of mortality and morbidity. The nursing care of these individuals must be based on appropriate and adequate training

**Aim:** to identify the experiences of nursing students with elderly patients.

Methods: It was descriptive study (February-March 2022) using a self-administrated questionnaire among students in Higher Institute of Nursing in Sousse. It included characteristics of students and their experience with the elderly patients.

Results: A total of 70 student participated. The majority were aged between 22 and 24years (58.6%) with sex ratio (M/F = 0.34) and 44.3% were enrolled in the 3rdacademic year of nursing. Most of them were single (91.4%) and only 12.8% were living alone. Over ¾ of students (77.1%) shared the same residence with elderly relatives. The majority of them showed interest in attending geriatric courses (92.9%) as well

as workshops and seminars (72.9%); however, one third (34.3%) considered that their academic training did not prepare them adequately for elderly care. Half of them had never attended geriatric courses (54.3%). Majority had already provided care to the elderly in their families (71.4%) and in their internships (82.9%). Majority expressed interest to work in geriatric department (88.6%). Students who received geriatric training were more likely to provide care for older adults in their internships (OR= 5.37; p=0.026) and in their families (OR= 5.09; p=0.006)

**Conclusion:** It seems to be necessary to enhance nursing students' training in elderly care in order to increase their interest in this vulnerable population and to improve their performance in managing these patients.

## Particularities of Biermer's disease in the elderly

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## **ABSTRACT**

**Introduction:** Although Biermer's disease (BD) is more frequent in the elderly, there are currently no clear recommendations for its screening. Indeed, its clinical manifestations are variable and sometimes difficult to recognize.

**Aim**: to evaluate the clinical and evolutionary particularities of BD in elderly patients.

**Methods**: We conducted a retrospective study, including patients aged over 65 years with BD followed between 2014 -2021. Clinico-biological and endoscopic outcomes were collected.

Results: We collected 33 patients. The mean age was 74 years and the sex-ratio M/F was 0.83.

Seven patients (21.2%) had associated autoimmune pathologies. The circumstances of discovery were mainly during gastroscopies performed to investigate iron deficiency anemia (36.4%). The mean hemoglobin level was 10.6g/dl, the vitamin-B12 level was 108pg/ml and the ferritin level was 30.5ng/ml.

Eight patients (24.2%) had an associated Hp infection. There were no significant differences in the severity of fundic atrophy or its activity compared to the general population unlike moderate to severe intestinal metaplasia which was significantly higher in the elderly subjects (p=0.018).

A better response to treatment in the group of patients without Hp was observed.

**Conclusion:** The association of iron deficiency and Hp infection with BD in the elderly is frequent as well as intestinal metaplasia. Therefore, its systematic screening, treatment and monitoring should be an integral part of the management of BD.

## Physical and mental health problems among elderly people: is there an effect of the living environment?

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### **ABSTRACT**

Introduction: Aging is a process that causes physicaland emotional burden on elderlies. The slightest change of the environment, like the habitat, may have serious repercussions.

Aim: to determine the level of loneliness, depressive symptoms, anxiety, frailty, and dependence between elderly people living in retirement homes and those living in their homes.

Methods: A cross sectional study was conducted among elderly people, in two retirement homes and living in their homes in the coast of Tunisia. Loneliness, depressive symptoms and anxiety were assessed using the short-form UCLA Loneliness Scale (UCLA-6), the Geriatric Depression Scale (GDS) and the Hospital Anxiety and Depression scale (HAD). Frailty and dependence were evaluated using FRAIL Scale and the Activities of Daily Living (ADL) scale.

Results: A total of 46 participants were included with 54.3% living in retirement homes. The mean age was 74.8 ± 8 years with a female predominance (58.7%). Out of 25 residents in retirement homes, 76% showed between mild to severe depressive symptoms against 33.3% of people living in their homes (p=0.004). High level of loneliness was reported in 96% of people living in retirement homes with a significant difference with those at home (p<0.001). No significant difference between the two groups was found regarding anxiety, dependence, and frailty (p=0.59, p=1, p=0.4 respectively).

**Conclusion:** Loneliness and depression were more prevalent in retirement homes. Loneliness could be a mediating factor to depression requiring more attention to the elderly in these structures.

## Physical violence against elderly women

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### **ABSTRACT**

Introduction: Physical violence against elderly women is still a little known phenomenon. Worldwide, studies have focused on the characteristics of elderly women victims of physical violence. In Tunisia, few data and studies exist on this topic. The objective of our study was to determine the socio- demographic characteristics of elderly women victims of physical violence in the region of Sfax and to propose adequate prevention measures.

**Materials:** This is a retrospective, descriptive study of all cases of women aged over 65 years victims of physical violence. This study was conducted in the forensic department of Habib Bourguiba Hospital in Sfax, over a period of two years (from March 1, 2018 to February 29, 2020). The data collection was carried out during the consultation for assault and battery by the forensic doctor.

Results: We collected 65 cases of elderly women victims of physical violence. They were mostly housewives (81.54%), married (92.3%) and of urban origin (72.31%). The majority of these assaults occurred on weekends (47.7%). The aggressor was a family member (29.2%). The weapon used was mostly a blunt object (93.84%). The injuries were mainly benign. The average duration of temporary total disability was 6.32 days +/-6 days. Permanent partial disability was expected at the time of injury in only 13.8% of cases.

**Conclusion:** The advanced age and the female gender are two factors that increase the vulnerability of victims of violence. A better understanding of violence against elderly women would allow for better care of victims.

## Poisoning in the elderly: about 46 cases

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### **ABSTRACT**

**Introduction:** Poisoning in the elderly is common, leading to death but mostly of low severity. The objective of our study was to analyze the epidemiology of poisoning in the elderly.

**Methods:** It is a retrospective, observational, monocentric study, spread over a period of one year and 6 months.

Patients aged 65 years and over were included as emergency room consultants for intentional or accidental poisoning. Epidemiological-clinical, therapeutic and evolutionary parameters were collected.

**Results:** A total of 46 patients were enrolled. The gender ratio was 0.8. The average age was 72.5±8.8 years.

64% had a medical history. Poisoning was voluntary in 26% of cases.

The main symptoms reported were: headache in 18 patients, impaired consciousness in 8 patients and vomiting in 7 patients.

The average Glasgow Coma Scale was 14±2 on the initial examination. The pupil's size was constricted (miosis) in 3 patients and dilated (mydriasis) for one patient.

The main diagnoses were: drug intoxication in 21 cases (45%) and monoxide carbon intoxication 22 (46%). Benzodiazepines cases nted for 47% of drug poisoning. Nine patients were admitted to resuscitation.

**Conclusion:** Although the evolution in intoxication of elderly subjects in the short term appears to be most often favorable, deaths from severe intoxication have been reported in the literature, hence the value of preventing intentional intoxication.

## Post-COVID-19 Rheumatoid Arthritis: an inducer of disease or a coincidence?

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## **ABSTRACT**

**Introduction:** The coronavirus storm continues to shake the health world with its complications, during and after infection.

**Objective:** We report one case of Rheumatoid Arthritis (RA) following COVID19 infection.

**Observation:** This is the story of a 69-year-old woman with a history of high blood pressure, atrial fibrillation and asthma.

Three months after hypoxemic SARS-COV2 pneumonia with moderate scan impairment, the patient presented for symmetrical inflammatory polyarthralgia in large and small joints.

Physical examination showed synovitis of the wrists and painful limitation of the shoulders.

Inflammatory balance was disturbed with sedimentation rate at 67mm/1h and Protein-C-Reactive around 60mg/L.

Antinuclear Antibodies were 1/100 positive without specifics, Rheumatoid Factor was 138IU/ml and anti-CCPs were >200IU/ml.

A complement by joint ultrasound showed several synovitis and tenosynovitis of the hands, a highly positive doppler activity, associated with metacarpophalangeal erosions.

An aspect consistent with chronic active inflammatory rheumatism of the erosive type.

The diagnosis of evolutionary RA was chosen, compared with a score of 8 from the American-College-of-Rheumatology.

Substantial treatment was indicated but delayed following the discovery of sequellar interstitial pneumonitis at the fibrosis stage in the control thoracic scanner.

The patient has been treated with 10mg/d of corticosteroids, pending completion of the necessary explorations in pneumology.

**Conclusion** This observation shows that COVID19 can trigger autoimmune diseases, in particular RA. This hypothesis is increasingly being reported in the literature.

## Predictors of severe COVID-19 acute respiratory distress syndrome among aged patients in Tunisia

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**ABSTRACT** 

**Background:** The COVID-19-associated to acute respiratory distress syndrome (ARDS) is a serious complication leading to several adverse outcomes within elderly.

The aim of this study was to identify predictors of severe ARDS among hospitalized COVID-19 elderly patients in a Tunisian hospital.

**Methods**: We conducted a prospective study including patients aged over 65 years, admitted at the COVID-19 departments of The University Hospital Tahar Sfar Mahdia between September 2020 and November 2021. We used "The RAPID CORE CASE REPORT FORM" developed by the World Health Organization. COVID-19 ARDS severe form was defined by a partial pressure of oxygen/fraction of inspired oxygen ratio (PaO2/FiO2) ratio < 100 mmHg.

**Results:** A total of 271 patients were included with a mean age of 71.92±6.06 years. The most common symptom was shortness of breath (63.5%). About 43.5% of patients

were admitted at the COVID-19 intensive care unit and 38.1% needed mechanical ventilation. Among them 85 deaths were reported (32.8%).

The overall prevalence of ARDS was 42.8% (21.8% had severe ARDS). After binary logistic regression, we found increasing odds of severe ARDS among females (p=0.02; OR=2.4 [95% CI, 1.1–5.4]). Patients hospitalized during the first and second COVID-19 wave had lower odds of severe ARDS (p=0.01; OR=0.3 [95% CI, 0.3–0.7]).

The Kaplan-Meir curves in survival analyses showed a better survival without severe ARDS in patients hospitalized without being in need for mechanical ventilation (p<0.001).

**Conclusion:** Adherence to evidence-based management including lung-protective mechanical ventilation remains needed to reduce severe ADRS secondary to the current COVID-19 virus.

## Predictive factors of mortality related to COVID-19

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**ABSTRACT** 

**Introduction:** The clinical presentation of SARS-Cov-2 infection in the elderly is highly variable, ranging from mild to severe forms.

**Aim:** To identify the predictive factors of mortality due to covid-19 infection in the elderly population.

**Methods:** Retrospective study including COVID +ve patients who died in the COVID department at the regional hospital of Ksar Hellal from October 2020 to January 2022.

Results: 38 deceased patients were colligated. Sex ratio (M/F) 1.53. The average age was 76 years ±6.8 (65-92). 90% of the deceased had comorbidities, 71.1% had hypertension; 55.3% had diabetes; 36.8% had dyslipidemia; 31.6% had COPD; 18.4% with a history of cardiovascular diseases; and 7.9% had kidney failure. Radiologically, lesions were severe in 33.3%, moderate in 41.7%, and mild in 25% of cases. Biological disturbances were also observed. These were high troponin levels in 61% of cases, high Ddimer levels in 79% of cases, lymphocytopenia in 47.4% of cases, thrombocytopenia in 6.1% of cases, leukocytosis in 36% of cases, high CRP levels in 67% of cases and an altered kidney function in 46% of cases.

**Conclusion:** Mortality from COVID-19 appears to be associated with age, cardiovascular and metabolic history, severity of radiological involvement, and observed biological disturbances.

## Prevalence of diabetic retinopathy in the elderly living with diabetes in Tunisia: Results of a national multicentric study

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### **ABSTRACT**

**Introduction:** Diabetic retinopathy (DR) is the most frequent complication of diabetes and is often the cause of poor eyesight and blindness in the elderly which increase the risk of falls and disability.

**Aim:** This study aimed to describe the prevalence of DR among the geriatric population living with diabetes in Tunisia.

Methods: Cross-sectional study undertaken by the Directorate of Basic Health Care during November 2019 in twelve randomly selected public health centers across Tunisia (six primary care centers and six ophthalmology centers). For this work, patients living with diabetes aged 65 years and older were selected. ADA 2020 glycemic targets for older adults were used to define diabetic control. Data analysis was carried out via SPSS 26 software.

Results: A total of 255 patients were included. Mean age was  $72 \pm 6$  years. A feminine predominance (60.1%) was found. Overall prevalence of DR was 24.3% of which 58.1% was proliferative DR. An east-west gradient was observed: Eastern regions showed higher DR prevalence (38.0%) compared to Western regions (15.7%)

(OR=3.3, CI 95% [1.72-6.29]) (p<10-3) with a noticeable regional disparity that mainly affected the Centre East (51.3%) and South East (34.3%) (p<10-3). Logistic regression showed that DR prevalence was positively and significatively associated with diabetes duration of 10 years or more (OR=9.45, CI 95% [2.85-31.36]), residence in eastern regions (OR=8.13, CI 95% [2.12-31.13]) and unmet glycemic targets (OR=2.78, CI 95% [1.48-5.21]).

**Conclusion:** Our study showed alarming DR prevalence among the elderly in Tunisia. Actions should be taken to improve access to care and regional disparity.

## **COVID-19** infection in a geriatric population

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## **ABSTRACT**

**Introduction:** Few studies have focused on exploring the clinical characteristics and outcomes of COVID-19 in the geriatric population.

**Aim:** To analyze the epidemiological, clinical, biological and evolutionary data during COVID infection in elderly patients.

Methods: Retrospective study including 245 elderly patients conducted in the COVID-19 department at the Ksar Hellal Regional Hospital, over a period extending from October 2020 to January 2022

Results: 254 elderly patients were included. Sex ratio (M/F) at 1.17. The average age was 75. 59.4% were hypertensive patients, 50.8% were with diabetes, 7.8% had a history with a cardiovascular disease, and 13.4% had COPD. Clinically, 59% of patients had a cough, 87% had dyspnea, 40.9% had fever and 22% had digestive disorders. In biology, the average CRP was 99.8 mg/L and 20% of patients had lymphopenia.12.59% of elderly patients presented a complicated form of COVID: Associated global cardiac decompensation in 17 patients, ACS in 5 patients and COPD exacerbation in 10 patients. 165 patients (64.9%) received

antibiotics. Oxygen Therapy was necessary for 248 patients (97.6%): 19 patients received NIV and 22 received CPAP. 10.23% of patients were admitted to the intensive care unit which marked the evolution of the disease. 38 deaths (14.9%) were recorded.

**Conclusion:** The elderly population is considered "vulnerable "to Covid-19, therefore it is our duty to ensure their protection.

## Profile of insulin-dependent type 2 diabetic elderly followed in an endocrinology unit: A cross-sectional study of 100 patients

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### **ABSTRACT**

**Introduction:** The prevalence of insulindependent type 2 diabetes is higher among seniors compared to other age groups.

**Aim:** To draw up the sociodemographic and clinical profile of insulin-dependent type 2 diabetic elderly followed in an endocrinology unit.

**Methods:** A cross-sectional study on type 2 diabetic insulin-dependent elderly recruited from the outpatient endocrinology consultation during June and July 2021. We applied the geriatric assessment scores.

Results: We recruited 100 patients with a mean age of 70.8±5.8 years and a sex ratio of 0.85. The majority of patients were married (72%) and had a low economic level (73%). Almost half of the patients were illiterate (45%), almost a quarter were smokers (23%) and 7% were alcohol users. The mean number of comorbidities was 4,45±2,17. Hypertension was the most frequent chronic pathology (73%) followed by dyslipidemia (56%). The mean number of medications was 7±3. Human insulin was the most prescribed among our patients (67%). Depression was the most frequent

geriatric syndrome (57%), followed by malnutrition (52%), falling risk (44%), memory disabilities (38%) and dependence in instrumental and basic activities of daily living (37% and 24%, respectively). Only 10% of patients had controlled diabetes. Diabetic neuropathy was the most frequent degenerative complication of diabetes (71%) followed by diabetic retinopathy (62%). Perceived hypoglycemia and hypoglycemic unawareness were found in 74% and 24% of patients, respectively.

**Conclusion**: In addition to poor diabetes control, insulin-dependent elderly are at high risk of geriatric syndromes, mainly depression and malnutrition. Their management must be comprehensive. The medico-psycho-social dimensions are complementary.

## Management of odontogenic cervico-facial cellulitis in the elderly ENT and CCF Department of La Rabta Hospital, Tunisia

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## **ABSTRACT**

**Introduction:** Odontogenic cervicofacial cellulitis in the elderly, is not yet well described in the literature and is associated with significant morbidity and healthcare costs.

**Objectives:** To study the clinical profile and the therapeutic management of cervico-facial cellulitis of dental origin in the elderly.

**Methods:** Retrospective study including 10 patients aged over 65 years, treated for cervico-facial cellulitis of dental origin between January 2015 and December 2021 in the ENT department of the CHU La Rabta.

**Results:** The average age was 71.3 years with extremes ranging from 66 to 79 years. Three patients were older than 75 years. The sex ratio was 1.5. Seven patients had diabetes. Two patients had taken nonsteroidal anti-inflammatory agents. Six patients had a tight trismus. Subcutaneous crepitations and skin necrosis were found in one case. A cervico-thoracic CT scan was performed in seven patients, showing an abscessed collection in all cases and mediastinal extension in one case. The average size of the collection was 5.2 cm with extremes ranging from 2 to 10 cm. Antibiotic therapy was used in all patients. The combination of amoxicillin and clavulanic acid and metronidazole was the most prescribed. Length of hospital stay varied from 6 to 15 days with an average of 9 days. A favourable evolution was noted for almost all patients. Only one patient died.

**Conclusion :** Cervicofacial cellulitis of dental origin in the elderly represents a real emergency where the patient's vital prognosis may be at risk.

A surgical procedure is often necessary.

## Satisfaction with quality of care among older adults living with diabetes: Results of a multi- centric national survey

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### **ABSTRACT**

**Introduction:** Partnership with patients living with diabetes plays an integral part in modern management of diabetes. Patient satisfaction is crucial to obtain and hold this partnership in order to improve outcomes and quality of care.

**Aim:** Our study aims to estimate the level of satisfaction among older adults living with diabetes who consult public healthcare centers in Tunisia.

**Methods:** This is a cross-sectional national study undertaken during November 2019 in six primary care and six ophthalmology centers randomly selected across Tunisia. Patients living with diabetes aged 65 years and older were selected. Participants answered a satisfaction questionnaire as a part of an interview with a trained investigator. Data analysis was carried out via the statistical analysis software SPSS 26.

**Results:** A total of 255 patients were included. Mean age was 72  $\pm$  6 years. A feminine predominance (60.1%) was found.

One-third (33.3%) of our study sample was either unsatisfied or slightly satisfied with quality of care. Only one in seven patients (14.5%) was very satisfied with the delivery of public health services.

The difference in gender, age, education level and region had no statistically significant effect on satisfaction.

Four causes of dissatisfaction were most frequently reported: long wait time (19.2%), lack of medical information (16.7%), unavailable drugs (15.7%) and short consultation time (9.6%).

**Conclusion:** This study showed mixed satisfaction levels with quality of care among the elderly living with diabetes. Dissatisfaction causes can be important clues to identify weaknesses and implement solutions for better diabetes care.

## Screening for neurocognitive disorders in basic health centers

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## **ABSTRACT**

**Introduction:** The prevalence of neurocognitive disorders (NCD) is increasing in our country due to demographic aging.

**Aim:** study the frequency and severity of NCDs in patients aged 65 years and older, consulting in basic health centers (BHC).

**Methods:** We conducted a cross-sectional, multicenter, descriptive study carried out in the outpatient clinic of the BHCs of Kram West and La Goulette during one month. The inclusion criteria were age of at least 65 years, no history of TNC and patient's consent. Neurocognitive functions were assessed by the Arabic-translated version of the Montreal Cognitive Assessment (MoCA) and the Tunisian-translated version of the mini-mental-state examination (MMSE).

**Results:** The study involved 128 patients. The mean age of the patients was 72.66  $\pm$ 5.31 years. The sex ratio was 1.46. TNC were detected in 48 (37.5%) and 72 (56.2%) patients by MMSE and MoCA respectively. The frequency of mild NCD was higher when the MoCA was used (46.87% vs. 25%). Regarding the frequency of major NCD, the results were comparable using the MMSE and MoCA (N=16; N=12 respectively). Multivariate analysis investigated factors

correlated with the presence of NCD and its severity such as advanced age, male sex, cardiovascular risk factors, occupational activity, and low educational level.

**Conclusion:** Screening for NCD in our study showed a high frequency in a population without prior cognitive complaints. The MoCA was found to be more sensitive in screening for early-stage NCDs, making it important to incorporate this test into the routine practice of primary care physicians.

## Seroprevalence of SARS-CoV-2 in the elderly population of the Capital City Tunis

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## **ABSTRACT**

**Introduction:** During the SARS-CoV-2 pandemic, elderlies were disproportionately affected including severe forms and higher mortality.

In this context, seroprevalence studies are essential to evaluate the epidemiology of SARS- Cov2 infection in this vulnerable population.

The objective of our study was to determine the seroprevalence of SARS- CoV-2 in Tunisian elderly population and to determine the factors associated with SARS-CoV-2 seropositivity.

**Methods:** A cross-sectional household survey was conducted (March-April 2021) in two areas of Tunisia's capital city.

In-house Elisa tests were used to detect Ig G antibodies against either the receptor binding domain of the spike protein (S-RBD) or the nucleocapsid (N) protein.

Multivariable logistic regression analysis was performed to assess factors associated with seropositivity.

#### Results:

- -424 elderly people were included, with a sex ratio equal to 0.7 and a mean age of 69.6±8.1 years.
- -Among them, 5.9% have been previously tested positive for COVID-19.
- -The seroprevalence of SARS-CoV-2 was equal to 37.0%, 95% confidence interval (CI) [32.6–41.7].
- -In multivariable analysis, previous diagnosis of COVID-19 infection (OR=4,.5;95% CI: [1,.2-17,.6]), a history of COVID-19 related symptoms (OR=4,.2 ;95% CI: [2,.1-8,.2]) and contact with a COVID-19 case within the household (OR=2,.7; 95% CI:[1,.7-4,.4]) were associated with seropositivity.

Conclusion: More than one-third of older adults have been infected by the end of the second COVID-19 epidemic wave, while only 5.9% tested positive for the disease. A history of COVID-19 related symptoms and contact with a COVID-19 case were associated with seropositivity, hence the importance of promoting COVID-19 screening and reinforcing barrier measures.

## Sexual Violence against elderly women

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### **ABSTRACT**

**Introduction**: Sexual violence is a public health problem both in frequency and in consequences. This phenomenon is even more serious when it affects elderly women and has serious psychological and social repercussions.

The objective of our study was to report a case of woman victim of sexual violence and to propose adequate prevention measures.

## The case:

It was about a 77 year old woman, married and house-wife, allegedly victim of physical and sexual violence by an unknown person at her home. She presented a contused wound on the head and multiple bruises on the face, torso and limbs, with subconjunctival hemorrhage. Vaginal examination showed the presence of an old defloration. Vaginal swabs were taken for genetic study and possible identification of the aggressor. The expert doctor attributed a temporary incapacity of 18 days with the prevision of a partial permanent incapacity which could be determined only after consolidation of the lesions.

**Conclusion:** Sexual violence against elderly women remains a complex problem. This violence has serious consequences on the mental health of the victim especially in this vulnerable We believe that it is essential to fight against sexual violence towards elderly women. This certainly requires collaboration between the various social, legal and medical stakeholders.

## Study of the causes of death of the elderly, examined in the forensic department of Sidi Bouzid

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## **ABSTRACT**

**Introduction:** According to the WHO, the elderly is defined as anyone over the age of sixty, a person who is particularly vulnerable to physical and mental illnesses related to the aging process.

**Aims:** The aim to study the causes of death of elderly people examined in the forensic medicine department of Sidi Bouzid Materials and Methods:

It's about a retrospective study of the autopsy records of elderly persons examined at the Sidi Bouzid forensic department during the year 2020.

## **Results and Discussion:**

The study focused on 26 deaths of elderly people, during the year 2020, representing 19.12% of the total corpses autopsied in the forensic department of Sidi Bouzid. The majority, 69.3% of the deceased, are male. The average age at death was 69.23 years with a standard deviation of 2.24, a median of 67 years, a mode of 64 years and extremes of 60 years and 88 years.

A personal history of a physical or mental illness was found in 61.5% of the deceased.

Natural deaths accounted for 69.8% of deaths dominated by cardiac causes (53.84% of the total), followed by respiratory causes (15.38% of the total). Violent death accounted for 30.7% of deaths. Hanging accounts for 23.07% of deaths followed by intoxication (7.6% of deaths).

Conclusion: Targeted prevention in the elderly is linked to better knowledge of the causes of death. A well-managed management of cardio-respiratory diseases and a follow-up of any psychiatric pathology could reduce the mortality rates of the elderly

## Suicide among elderly in the center of Tunisia

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## **ABSTRACT**

**Introduction:** Suicide may seem like a secondary problem by comparison to other causes of death among elderly. However, and compared to suicide in the general population, this phenomenon is constantly growing, raising signs of alarm.

**Aim:** Specify the particularities of suicide among elderly in the centre of Tunisia.

**Methods:** Retrospective study of 26 cases of suicide among elderly collected at the Department of Legal Medicine of Sousse, over a period extending from January 2016 to December 2021.

**Results:** The number of cases of suicide among the elderly is constantly increasing over the years. The maximum frequency corresponds to ages above 80 years. We noted a slight male predominance (54% vs. 46%). The majority of the victims were from rural areas (85%). Suicide often occurred in the victim's home. The majority of victims were married (57%) followed by widows (34%). 23% of the victims had psychiatric history, mainly depression. Other risk factors were noted like loneliness, abandonment and poverty. Suicide was essentially by mean of hanging in 50% of cases, followed by intoxication (31%), mainly

with organophosphorus substances and defenestration (19%).

**Conclusion:** Doctors can play a colossal role in decreasing the risk of suicide among elderly. However they represent only a part of a bigger prevention strategy that needs to aim to reduce, in the longer term, the vulnerability of suicidal elderly people.

## Suicide in the elderly in the Medenine-Tataouine region

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### **ABSTRACT**

**Introduction:** Suicide is a major public health issue. The focus on suicide of the elderly is more recent given the aging population.

**Objectives:** Identify the socio-demographic characteristics of senior suicide in the Medenine-Tataouine region and identify potential preventive measures.

Materials and Methods: A retrospective study of suicide victims whose age is 65 or older, among autopsy cases where there is a strong presumption of corresponding suicide over a period of 02.5 years (01/10/2019 - 31/03/2022).

Results: 10 cases of suicide in the elderly with average age of 74 years. The sex ratio is 1.5. Victims lived alone in 30% of cases. The absence of stable financial income and socio-familial support are found in 80% and 50% of cases respectively. The presence of somatic pathology with a reserved prognosis is identified in 20% of cases. The presence of a psychiatric history could only be identified in 30% of cases where only one had a history of suicide attempts. Suicide occurred at home or near home in all cases. Poisoning with pesticides or paraphylene diamine (PPD) is the mode of

suicide in 50% of cases, hanging in 30% and precipitation of a high place or in a well for the rest.

**Conclusion:** Suicide in the elderly is a growing phenomenon in our population. Aging itself is a state of suicidal vulnerability. Lack of early identification and underestimation represent a socio-cultural barrier. The establishment of a national prevention strategy and the decentralization of psychiatric care services is an emergency.

## The Effects Of The Mediterranean Diet On Micro And Macrovascular Complications In Elderly Diabetics

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### **ABSTRACT**

**Introduction:** The Mediterranean diet (MD) is a balanced, diversified and virtuous dietary pattern characterized by a low intake of saturated fats and a high intake of monounsaturated fatty acids.

**Aim:** To assess the relationship between MD adherence and micro and macro vascular complications in elderly diabetics.

**Methods:** We conducted a cross-sectional study that included 51 diabetic patients aged 65 years and older. Adherence to the Mediterranean diet was estimated from a frequency questionnaire with 14 Items. Three categories of MD adherence were individualized (low  $\leq$ 5, medium 6-9, high  $\geq$ 10 items).

**Results:** The average age of our patients was 77 years with 29 men and 22 women. Among them 78.5% were obese, 67% had dyslipidemia and 65% had hypertension. Patients with low, medium and high MD adherence represented 13.7%, 66.7% and 19.6% respectively.

The elderly with the highest MD adherence had less diabetic nephropathy (p=0.01) and less history of stroke.

A statistically significant inverse relationship was found between the use of olive oil as the main culinary fat and the presence of hypertension (p=0.018), peripheral neuropathy (p=0.05), obliterate arterial disease of the lower limbs (p=0.04) and a history of amputation (p=0.043).

**Conclusion:** The Mediterranean diet would have a protective effect against degenerative complications in elderly diabetics. Longerterm studies are however needed to confirm this hypothesis.

## The Fall and Fatal Domestic Accidents in Elderly Subjects in the Medenine- Tataouine Region: Study Of 10 Autopsy Cases

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### **ABSTRACT**

**Introduction:** Fall is a common cause of accidental death in the elderly and domestic accidents are their first etiology.

**Objectives:** To study the characteristics of fatal domestic accidents in the elderly in the Medenine-Tataouine region and to determine predisposing factors.

### Materials and methods:

A retrospective study of all cases of death by domestic accident in subjects aged 65 and over, autopsied at the forensic department of the hospital H. Bourguiba Medenine for 02 and a half years (01/10/2019-31/03/2022).

Results: The average age of the victims is 74 years (68-77 years). The sex ratio is 1.5 (6/4). The death occurred at the main home in 07 cases and in a holiday home for the rest. The mechanism of the accident is the fall in the staircase in 05 cases, in the bathroom in 02 cases and the fall in the garden in 03 cases. Orthopedic (gonarthrosis) or neurological (dementia and Alzheimer's) history is found in 05 cases. The AVK plug is associated in 04 cases. The most common cause of death was isolated head trauma, if not multiple head and thoracic abdominal trauma, in 03 cases. A femur neck fracture is associated in 03 cases. The average time to death is one day (J0 - J8).

**Conclusion:** Aging, decreased vigilance and attention, the impact of chronic pathologies as well as environmental factors are predisposing factors for fatal domestic accidents.

## The vicious circle of malnutrition among insulin-dependent type 2 diabetic elderly: A cross-sectional study of 100 patients

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### **ABSTRACT**

Introduction: In parallel with the population increasing aging, malnutrition represents a major health problem that reduces quality of life and increases mortality among elderly. Aim: The objective of our study was to assess the nutritional status and to identify the determinants and the impact of malnutrition among insulin-dependent type 2 diabetic elderly.

**Methods:** A cross-sectional study on insulindependent type 2 diabetic elderly recruited from the outpatient endocrinology consultation during June and July 2021. We applied the geriatric assessment scores.

**Results:** We recruited 100 patients with a mean age of 70.8±5.8 years and a sex ratio of 0.85. The mean of Mini Nutritional Assessment was 22.22±4.8. The nutritional status was suspected in 42% of our patients: Thirty-six patients were at risk of malnutrition and sixteen were malnourished. Patients with suspected nutritional status were significantly less married, more retired, had significantly lower educational and economic level, more history of hospitalization, more comorbidities, more sight problems, more

diabetic retinopathy, more osteoarthritis, worse oral hygiene, were more edentulous and took more medications. Hypoglycemia, orthostatic hypotension, peripheral vascular disease, diabetic foot, diabetic foot ulcer, depression, memory impairment, falling risk and dependence in both basic and instrumental activities of daily living were significantly more frequent among elderly having suspected nutritional status.

**Conclusion:** The severity of malnutrition among our patients is essentially due to the vicious circle maintained by both multiple risk factors and consequences. Identifying the different nutritional disorders, the key elements of their vicious circle and correcting them are a permanent concern in geriatrics.

### Frequency of geriatric loneliness and its associated factors: in centraleastern Tunisia

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#### **ABSTRACT**

**Introduction:** Loneliness in the elderly is a social problem that continues to increase, it has significant psychological and physical sequelae.

**Aim:** Our study aimed to determine the frequency of loneliness in a sample of the elderly population in central-eastern Tunisia and the associated factors.

**Methods:** A cross sectional study was conducted between January and February 2022 among people aged over 65 years sampled from outpatient consultations at basic health centers (in Hiboun- Mahdia), and retirement homes (in Moknine and Sousse) in centraleastern Tunisia. The measurement tool was developed from valid UCLA scale of loneliness translated into Arabic.

**Results:** A total of 46 elderly were included in this study. The mean age was  $75 \pm 8$  years with extremes ranging from 65 to 103 years and the majority were female. Eighty percent of them didn't go to high school. Most of the old people, who were recruited, were unmarried but only 43.5% of them had less than two children.

Overall, 69.6% of our sample had a very high level of loneliness. A significant higher loneliness level was found among residents of retirement homes (47.6% vs 96%, p<0.001%) and people who had a disturbed family environment (100% vs 50%, p<0.001).

**Conclusion:** Loneliness among elderlies inc reases levels of depression and anxiety. That's why, it's mandatory to detect geriatric loneliness while trying to reduce their associated factors by a multidisciplinary intervention.

## What about bone and mineral disorders in elderly chronic hemodialysis patients?

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### **ABSTRACT**

Introduction: Bone and mineral disorders (BMD) are spread in chronic kidney disease and especially among chronic hemodialysis patients. Their clinical complications and their impact in the vital prognosis justify appropriate prevention and adequate treatment.

Our objective was to determine the phosphocalcic status and the prevalence of BMD among our patients and to assess the degree of adherence to the recommendations of KDIGO.

**Methods:** We proposed to study the phosphocalcic profile of 25 elderly patients followed in our hemodialysis unit compared to young patients. Bone and mineral markers were evaluated: serum calcium (Ca), phosphorus (Ph), alkaline phosphatase (ALP) and parathormone (PTH) levels.

**Results:** Gender distribution was in favor of women (9 men and 16 women). The mean age was 73 (65-86) years old. The mean calcium level was  $2.09 \pm 0.26$  mmol/l, the mean phosphorus level was  $1.59 \pm 0.45$  mmol/l, the mean ALP level was  $167 \pm 86$  UI/l, and the mean PTH level was 511 pg/l (52-1642). Compared to young group, the elderly patients had significantly low average PTH (511 vs 785, p<0.05).

**Conclusion:** The phosphocalcic balance is reached for the majority of our patients almost thanks to their compliance with the hygieno-dietary rules as well as their adherence to treatment. The low level of PTH observed among elderly patients could be explained by malnutrition and compliance to chelator treatment.

### Denutrition and its Related Factors among Elderly in the Center of Tunisia

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#### **ABSTRACT**

**Introduction:** Denutrition which is a communal disorder in the aged people, is recognized to rise their susceptibility to negative health events. We aimed at assessing the prevalence of denutrition among elderly in the region of Monastir and Sousse and its determinants factors.

**Methods:** We performed a cross-sectional study recruiting all elderly hosted at the Internal Medicine Department of the Fattouma Bourguiba University Hospital (Monastir) and the Retirement Home of Sousse, between March 2020 and March 2021. The measurement tool was the Mini Nutritional Assessment (MNA) screening score. Comprehensive geriatric assessment and examination including functional and nutritional evaluation were done for each participant.

**Results:** A total of 151 patients were interviewed, with an average age of 75.4  $\pm$  8 years. Males represented 54.3% of the study sample. About 38.4% of patients were undernourished.

Being hosted in a retirement home (53.4%), having a Mini-Cognitive scale  $\leq$  2/5 (86.2%), patients with a BMI 18.5 Kg / m²: Thinness (83.3%) were significantly associated with denutrition (p < 0.05).

Binary logistic regression showed that participants having cognitive impairment (OR=9, IC95% [7.1-20]) were more likely to be undernourished.

**Conclusion:** The findings of the study confirm that denutrition is prevalent in Tunisian older adults with cognitive impairment. A holistic approach should be adopted to screen for denutrition and develop health promotion interventions in this vulnerable population.

## The frequency of geriatric depression and its associated factors: in a sample of elderly in Tunisia

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**ABSTRACT** 

**Introduction:** Depression in the elderly subjects develops slowly, confining the patient sometimes to intense and long-lasting suffering, thus causing the exhaustion of the family as well as the attending physician. Our study aimed to determine the frequency of depression in a sample of the elderly population and its associated factors in Tunisia.

**Methods:** A cross sectional study was conducted between January and February 2022 among subjects aged over 65 years sampled from outpatient consultations at basic health centers and in retirement homes in Tunisia. The measurement tool was developed from validated version of the Geriatric Depression Scale of geriatric depression translated into Arabic.

**Results:** Out of the total of 46 elderlies, the mean age was  $75 \pm 8$  years with extremes ranging from 65 to 103 years and the majority were female (sex ratio=0.73). Residents of retirement homes were involved in 54.3%. Most of the old people, who were recruited, were unmarried but only 43.5% of them had less than two children. Eighty percent of them did not go to high school.

Overall, 56.5% of our sample had probable depression. A significant higher depression level was found among residents of retirement homes (76% vs 33.3%, p=0.04), people who were unemployed (69% vs 35.3%, p=0.026) and individuals with a disturbed family environment (81.8% vs 33.3%, p=0.01).

**Conclusion:** Late life depression is severe and difficult to treat. It's common but often underestimated. That's why, it's mandatory to detect these depressive states while trying to reduce their associated factors by a multidisciplinary intervention.

### Diabetes mellitus and its degenerative complications in the elderly: an overview

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#### **ABSTRACT**

**Introduction:** Diabetes in the elderly is associated with an increased risk of morbidity and mortality due to macro- and microvascular complications. However, optimal glycemic control and modification of risk factors can significantly reduce this risk.

**Aim:** Identify cardiovascular risk factors (CRFs) associated with diabetes in the elderly.

**Methods:** A descriptive cross-sectional study conducted over 6 months in department A of the National Institute of Nutrition, which included type 2 diabetic patients aged over 65 years.

**Results:** The study included 99 patients with 50 women and 49 men. The mean age was 77.57±5.7 years. Of these 71 were obese, 65 hypertensive and 63 had lipid metabolism disorders. The mean duration of diabetes was 14 ± 9.7 years with a mean HbA1c of 11%±2.1.Degenerative complications were found in 80% of the subjects with 69.8% of microvascular complications distributed as follows: diabetic

nephropathy in 51% of patients, retinopathy in 46.5% and peripheral neuropathy in 25.5%. Macrovascular complications were present in 30.2% of patients, coronary artery disease was the predominant complication 20.5% followed by lower limb arteritis in 17% and stroke in 11%.

**Conclusion:** The management of diabetes in the elderly often requires a thorough geriatric assessment, in order to propose a therapy adapted to the terrain, which often associates several CRFs with diabetes.

### Elderly patients admitted to the emergency department (ED): Epidemiological and clinical characteristics, management, and referral

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#### **ABSTRACT**

**Introduction:** The care of elderly patients in the ED remains specific. This age group must be the object of access to specific care to improve the vital prognosis. Our study aimed to determine epidemiological and biological characteristics of patients over 65 years old, admitted to the ED.

**Methods**: A prospective, descriptive, and analytical study was carried out over two months. Inclusion of patients over 65 years old, admitted to the ED regardless of pathologies. With the collection of epidemiological and biological characteristics of patients.

**Results:** We included 60 patients, representing 30.6% of total patients admitted to the ED. The mean age was 75±7.5 years. The sex ratio was 1.6. Main comorbidities were: Hypertension (63.3%), Diabetes (50%), Coronary artery disease (23.3%) and rhythm disorders (15%). Common reasons for consultation were: Respiratory distress (53.3%), Hemodynamic distress (30%), Neurological distress (21.7%) and chest pain (15%). Nearly 52% of patients had a renal failure on admission. The median lactate level was 2.7 mmol/L.

During their stay in the ED,45% of patients were on oxygen: 21.7% required non-invasive ventilation, and 16.7% underwent orotracheal intubation. Fifty percent of patients received vascular filling, and 21 % were put on vasoactive drugs. The average duration of hospitalization in the ED was 35±12 hours. After stabilization, 43.3% of patients were transferred to referral services, and the rest remained in the ED. The in-hospital rate of mortality was 26.7%.

**Conclusion:** The senior population represents a significant fraction of admissions to the ED. The analysis of epidemiologic data can improve the management of elderly people in the ED, shorten their length of stay, and ensure better long-term control of their co-morbidities.

### Elderly Victim of Fatal Work Accident in Medenine-Tataouine Region: Study of 8 Autopsy Cases

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#### **ABSTRACT**

**Introduction:** The death of older persons due to occupational accidents is an increasingly common phenomenon in our population due to the increase in life expectancy and the socio-economic crisis.

**Conclusion:** The average age of the labour force continues to increase in the face of socio-economic challenges. However, ageing through reduced physical, psychological and psychomotor performance is a predisposing factor for fatal accidents at work.

**Objectives:** To study the characteristics of the mortality of the elderly by occupational accident in the region of Medenine-Tataouine.

**Materials and methods:** A retrospective study of cases of fatal work accidents in subjects aged 65 and over who underwent a forensic autopsy for a period of 02.5 years (01/10/2019 -31/03/2022).

**Results:** The average age of the victims is 69 years (65-77 years). The male sex is exclusive. The lack of stable financial income and social support is pervasive. The death occurred during an activity related to the building sector in the majority of cases (06 cases) followed by agricultural activities. The most common mechanism is drop in height (6 cases). The cause of death is most often multiple trauma (06 cases). Death is immediate in 06 cases otherwise a maximum of 02 days is recorded.

## End of life care among elderly: medico-legal issues and ethical aspects

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#### **ABSTRACT**

**Introduction:** Advances in modern medicine have certainly extended life expectancy, but at the cost of chronic pathologies rising. The delay of death gets the elderly to experience an end of life associated with suffering as the demands of long term treatments can be difficult to bear.

**Aim:** Discuss the role of doctors in the end of life care among elderly and the medico-legal issues and ethical aspects that arise from it.

**Results:** After exhausting struggles, remissions and relapses, the elderly must one day admit defeat and doctors will sadly announce that there is nothing more to be done. This brings us to a series of reflections:

- Can doctors easily make the diagnosis of an end of life situation among elderly?
- Why does a medicine, so proud of its achievements and claiming to save people, end up making the elderly suffer so much?

To be able to remedy these problems, health professionals must reduce the suffering of the elderly and their families. Some alternatives are known worldwide such as palliative care. Other measures are practiced in some countries and require multiple reflections such as euthanasia and assisted suicide. Such alternatives may involve doctors' medical liability in Tunisia.

**Conclusion:** The geriatric team, called upon to assist a dying elderly person, must arm themselves with professional and human qualities to maintain a relationship between the patient, his family and the caregivers until the end.

# Epidemiological and clinical profile of elderly Covid-19 hospitalized patients in general medicine department at the regional hospital of M'saken

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### **ABSTRACT**

**Introduction:** Elderly is a vulnerable population which epidemiological and clinical characteristics must be known for rapid diagnosis and better management.

**Aim:** The purpose of this study was to describe the epidemiological and clinical characteristics of the elderly patients hospitalized for COVID-19.

**Methods:** This was a prospective descriptive study conducted in a general medicine ward of a regional hospital on covid-19 patients aged  $\geq$  65 years confirmed by a rapid test or a reverse transcription real-time polymerase chain reaction (RT-PCR) tests hospitalized during the period from January to August 2021.

**Results:** Eighty-six patients were hospitalized. Mean age was 75.15±7.14 years with a sex ratio (M/F= 1.26). Majority had at least one comorbidity (74.4%): hypertension (58.1%), diabetes (37.2 %), heart disease (atrial fibrillation, heart failure, ischemic heart disease) (24.5%) and chronic respiratory pathologies (asthma and obstructive pulmonary disease (COPD)) (10.4 %). The most frequent clinical signs were dyspnea (75.6 %) followed by asthenia (65.1%), fever (64 %) and cough (39.5%). Majority (77.9%) had severe cases on admission. Nasal cannula or high concentration mask was used in the majority of patients (31.4% and 66.3%) and in only 12.8% Optiflow was used. One fifth of patients (19.8 %) were transferred to other institutions for advanced care and 12.8% died.

**Conclusion:** Hospitalized patients were mainly male, with at least one comorbidity. Symptoms were dominated by dyspnea. Knowledge of these factors can help in the management of COVID-19 in the elderly, especially in regional hospitals where human and material resources are limited.

### Etiological profile of thrombocytopenia in elderly patients

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### **ABSTRACT**

**Introduction:** Thrombocytopenia is frequent in elderly patients. It can be particularly dangerous in this category of patients because of its additional high bleeding risk.

This study aims to describe the etiological profile and epidemiological, clinical and evolution characteristics of thrombocytopenia in elderly patients.

**Methods:** This retrospective descriptive study was initiated in the department of internal medicine. From 2006 to 2017.All patients, older than 65 years-old, admitted for thrombocytopenia were included in this study.

**Results:** We collected 60 patients. There were 35 men (58.33%) and 25 women. The median age was 72 years [66-92]. Thrombocytopenia was latent in 42 cases (70%), manifested by a hemorrhagic syndrome in 12 patients and by purpura in 9 cases. The platelet count ranged from 2000 to 140,000 elements/mm3 with a median of 78819 elements/mm3. Twelve patients (20%) had severe thrombocytopenia (<20,000 elements/mm3).

Thrombocytopenia due to a central etiology was noted in 33 cases (55%): myelodysplasia in 14 cases, vitamin B12 deficiency in 12 cases, leukemia in 5 cases, myelofibrosis and aplasia in one case each. The etiologies of peripheral thrombocytopenia were: immune thrombocytopenia in 14 cases, hepatic cirrhosis in 3 cases, antiphospholipid syndrome in 2 cases, drug-induced thrombocytopenia in 3 cases, Sjörgen syndrome in 2 cases, systemic lupus erythematosus in 1 case, hypersplenism in 1 case, and an infectious cause in 1 case. Five patients died.

**Conclusion:** The etiologies of thrombocytopenia in the elderly are dominated by central etiologies. Immune thrombocytopenia is rare in these patients but not exceptional.

## Excessive anticoagulation in elderly patients treated with vitamin K antagonists, seen at the emergency department

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### **ABSTRACT**

Introduction: Excessive anticoagulation with vitamin K antagonists(VKA) is a common reason for consultation in the emergency department(ED). It represents one of the leading causes of iatrogenic accidents, especially in elderly patients. Our study aimed to study the epidemiological, clinical and biological data of elderly patients treated with VKA.

**Methods:** A prospective, descriptive and analytical study was conducted over two years, including all patients over 65 years old, admitted to the ED for management of excessive anticoagulation with VKA. With the collection of the epidemiological-clinical and biological characteristics of patients.

**Results:** We included 74 patients. The mean age was 75±6.3 years. The sex ratio was 0.8. Indications for putting patients on VKA was: Arrhy thmia(69%), Prosthetic valves(16%), Pulmonary embolism(9.3%) and deep vein thrombosis (5.4%). Common reasons for consultation were: Hemorrhagic manifestations (28.6%), Dyspnea (21.6%), Abdominal pain (10.8%) and neurological disorders (9.7%). Hemorrhagic manifestations were mainly represented by: Gingivorrhagia or epistaxis (9.5%), Digestive hemorrhage (5.6), Hemoptysis (4.1%), and bleeding wound (2%).

Nearly 42% of patients had an INR above the therapeutic range, with a median INR level of 3.51.

The most common causes of excessive anticoagulation were: Take errors(8.1%), Occurrence of an acute event(6.8%) and the taking of NSAIDs or enzyme inducers(4.1%).In 75% of cases, the cause of excessive anticoagulation were not specified. Forty percent of patients were treated on an outpatient basis and 13.5% were admitted to the ED. The median length of stay was 24 hours.

**Conclusion:** Despite their wild use, VKA treatment is not free of complications, especially in elderly patients. The analysis of epidemiological data is essential, in order to improve management and avoid consequences that can be fatal.

## Falls in the elderly: predisposing factors and consequences according to nurses

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#### **ABSTRACT**

**Introduction:** Falls are recognized as an important public health problem, especially among the elderly. It is a frequent reason for admission in the emergency room. They are caused by the aging process itself but also by the behavior of the person and his environment.

**Aim:** To determine nurses' knowledge and attitudes about predisposing factors and consequences of falls in the elderly.

**Methods:** This was a descriptive cross-sectional study conducted over a period of two months from May to June 2020 among nurses in six departments of Sahloul Hospital (cardiology, general surgery, physical medicine, internal medicine, neurology and orthopedics) and the ophthalmology department of Farhat Hached through a self-administered questionnaire.

**Results:** A total of 70 nurses had participated in the study. The mean age of the participants was 35years, 60% of them were female.

Regarding predisposing factors, advanced age (90%), orthostatic hypotension (80%), walking and/or balance disorders (74.29%), visual deficiency (72.86%), neurological disorders (72.86%) and environmental factors such as inadequate lighting, inappropriate clothing, and obstacles (45.71%) were most commonly reported

Regarding the consequences of falls, the majority of respondents (80%) mention moderate to severe physical trauma and 62.86% identify psychological disorders such as the fear of falling again and the lack of confidence.

**Conclusion:** Our study highlighted the current situation regarding nurses' knowledge and attitudes regarding patient falls causes and consequences. The implementation of a multifaceted fall-prevention program for the elderly including educational programs on falls and fall prevention for nurses seems to be needed to keep patients safe.

### Food supplements in geriatrics: safety of use

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#### **ABSTRACT**

**Introduction:** Food supplements (FS) prescription in geriatrics has become a common practice in Tunisia which has increased the market of their marketing, importation and local manufacture.

**Objective:** To study the Tunisian market of FS prescribed in geriatrics and to elucidate the safety of their use.

**Material and methods:** Investigations carried out with 12 doctors (general practitioner) concerning their FS prescriptions in geriatrics: molecules prescribed, frequency and origin (imported or locally manufactured).

#### **Results:**

- Prescribed FS molecules (80% prescriptions): complexes comprising zinc, iron, magnesium and/or calcium with vitamins and amino acids (chelated).
- 8 doctors prescribe imported FS, the rest are not interested in the origin.

**Conclusion:** Cachexia, malnutrition, changes in transit, cognitive problems, bone disorders are frequently found manifestations with elderly subjects related to their advanced ages, pathologies or their various therapies. A dietary intake based on FS containing mineral salts, vitamins and/or amino acids is shown to be beneficial in these manifestations reducing.

Apart from their known undesirable effects, these FS may present a safety of use' problem related to their origin and manufacturing: imported ones, controlled by the Department of Pharmacy and Medicine of the Health Ministry; or locally manufactured, not subject to any control.

Various investigations have concerned local FS manufacturers with the identification of poor manufacturing conditions and, therefore, regulatory texts organizing the manufacture of FS in Tunisia are being drafted.

Particular vigilance, particularly in relation to their origins, must be given when prescribing and administering FS in the elderly.

### Extra-articular manifestations of RA: particularities in the elderly

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#### **ABSTRACT**

**Introduction:** RA is a chronic inflammatory disease characterized by joint damage that can be erosive and deforming, but also systemic damage that can affect several organs: extra-articular manifestations (EAM). It has been reported that lateonset RA after 65 years EORA may have different characteristics compared to early-onset RA YORA.

**Objective:** Compare clinical and biological characteristics and the EAM EORA compared to the YORA.

**Methods:** This is a retrospective study carried out on patients with RA meeting the EULAR 2010 criteria. Sociodemographic, clinical, biological, immunological and radiological data were collected.

**Results:** There were 180 patients in this cohort, of whom 51 (28%) had an EORA and 129 (72%) a YORA. The average age was 71 years and 43 years respectively. The sex ratio (M/F) was 0.2 in the EORA group versus 0.5 in the YORA group (p=0.026). The disease activity score (DAS28) was 4.9 in the EORA

group versus 3.9 in the YORA group (p=0.3). Fifty-three patients had EAM (10 in the YORA group and 42 in the EORA group) (p=0.3): 20 eye damage (dry syndrome), 21 lung damage (10 interstitial syndromes and 11 restrictive syndromes), 4 kidney damage (renal amyloidosis), 6 skin lesions (rheumatoid nodules) and 2 vasculitis. The incidence of dry eye syndrome, lung and skin involvement was higher in the EORA group (p=0.5, p=0.6 and p=0.4 respectively).

**Conclusion:** The distinct characteristics of EORA patients make it a unique entity different from "classic rheumatoid arthritis". In our study, EAM were more frequent, especially dry syndrome, lung involvement and skin involvement.

### Gougerot-Sjogren's syndrome in elderly patients

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### **ABSTRACT**

**Introduction:** Sjögren's syndrome (SS) is a chronic autoimmune disease characterized by a sicca syndrome a as a result of lymphocytic infiltration of the lacrimal and salivary glands. The diagnosis of SS in the geriatric population is not straightforward because of the frequency of differential diagnosis.

**Aim:** This study aims to describe the epidemiological, clinical, biological and etiological features of SS in the elderly.

**Methods:** This retrospective descriptive study was initiated in the department of internal medicine. From 2011 to 2013. All patients, older than 65 years-old, diagnosed with SS were included in this study. All our patients meet the European criteria of diagnosis of SS.

**Results:** We collected 9 patients. There were 8 women and 1 man. The median age was 68.8 years-old [65-75]. The glandular manifestations were revealing in 87.5% of the cases. Extra-glandular manifestations were frequent (75%): arthralgia in 62.5%, neuropsychiatric impairment in half of the cases (peripheral neuropathy in 3 cases, anxiety-depression syndrome in 1 case), pulmonary fibrosis was observed in 1 case. Biopsy of the accessory salivary

glands was contributive in 2 cases (25%). The autoimmune screen revealed a positive anti-SSA and anti-SSB in 2 cases and Rheumatoid Factor in 1 case. The SS was primary in 4 cases (50%). Secondary to Rheumatoid arthritis in 2 cases, to SLE in 1 case and autoimmune thyroiditis in 1 case. No lymphomatous transformation was noted.

**Conclusion:** The extra-glandular manifestations of primary GJS are frequent in elderly patients. In contrast, the prevalence of immunological abnormalities is low.

### Hematological parameters in elderly patients with COVID-19

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#### **ABSTRACT**

**Introduction:** Alterations in various hematological parameters have been recently documented in COVID-19. People of all ages can be affected by this virus, but older people are at a high mortality risk.

**Aim:** Describe the haematological parameters in elderly patients with COVID-19 and its clinical impact.

Materials and Methods: A retrospective monocentric study was conducted in elderly patients (aged 65 years or older) admitted to the infectious diseases department with confirmed SARS-CoV-2 infection (Mar2020 - Dec2021). Hematological findings were correlated with the outcomes of the disease by a statistical analysis.

**Results:** We enrolled 202 patients in the study with a median age of 73.4  $\pm$ 6.08 years old. We found in our population a median WBC count of 8938 cells/  $\mu$ L [2200-25000], lymphocytes of 1083/mm³ [260-6320], neutrophils of 7557.5/mm³ [1300-24000], hemoglobin of 12.26 g/dL [5.0-18.0], platelet count of 238.8 10^3/mm³ [35-690], prothrombin time of 82.3% [27 -100] and D-dimer level of 1910.8

ng/mL [164 - 10000]. In the univariate analysis, WBC count (p=0.009), neutrophils (p<0.001), Neutrophil-to-Lymphocyte Ratio (p<0.001) and Platelet-Lymphocyte Ratio (p=0.003) were significantly increased in the group of patients who died. The levels of lymphocytes (p=0.045) and prothrombine time (p=0.001) were significantly lower in patients with fatal disease outcome. However, in the multivariate analysis, there was no independent predictive hematological factor of mortality.

**Conclusion:** Further studies are needed to elucidate these results and to enable the use of these analysing items as biomarkers that indicate the severity of the disease in this specific population.

## Impact of obesity on lung ageing in chronic obstructive pulmonary disease

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### **ABSTRACT**

**Introduction:** Obesity is a global health threat and many obese patients suffer from respiratory symptoms and diseases. The overall impact of obesity on lung function is multifactorial, related to mechanical and inflammatory aspects of obesity.

**Objective:** To investigate the relationship between obesity and lung ageing in patients with COPD.

**Methods:** This was a cross-sectional comparative study including 241 COPD patients divided into two groups: 52 obese patients (G1) and 189 controls (G2). BMI is calculated using the formula weight/height2. All patients performed a pulmonary function testing with spirometry. Estimated lung age was calculated using a specific formula for North African patients. Correlation between lung age and body mass index was processed with Pearson test.

**Results:** Mean age was  $58.10 \pm 1.11$  years in G1 and  $57.41 \pm 1.85$  years in G2. Mean BMI was  $33.84 \pm 0.56$  Kg/m2 in G1 and  $23.35 \pm 0.27$  kg/m2 in G2. Mean lung age was  $81.88 \pm 1.78$  years in G1 and  $76.83 \pm 1.07$  years in G2. Although G1 and G2 were matched in age (p=0.766), there was a statistically significant difference between the two groups in estimated lung age (p=0.027). Lung age and body mass index were positively correlated (p=0.01, r=0.165).

**Conclusion:** Obesity seems to furthermore increase estimated lung age in patients with COPD due to the accelerated ageing process of the respiratory system. Therefore, lung age could be used to motivate lifestyle change in obese individuals.

### Infectious myositis: an unusual cause of inguinal pain in the elderly

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#### **ABSTRACT**

**Introduction:** Infectious myositis represents a rare clinical entity related to a subacute infection of the skeletal muscles. The clinical presentation usually combines pain in the infected muscle with fever but it can be confusing especially in elderly.

We report a case of infectious myositis with atypical presentation.

**Observation:** A 69-year-old woman, obese, followed for hypertension and diabetes consulted the emergency- room for pain in the left inguinal-fold evolving for 14 days without any notion of trauma or skin invasion.

**Physical examination:** no inflammatory-signs in the area, palpation and mobilization of the lower limb impossible due to pain.

Biology-tests: biological-inflammatory-syndrome and elevated CPK. Creatinine and liver function were normal.

Fracture of the upper-end of the femur or septic arthritis were suspected.

The X-ray of the pelvis was normal and the Ultrasound of the left hip showed a swollen appearance of the left adductor muscle without effusion or signs of arthritis.

**On MRI:** large T2-hypersignal and T1-isosignal area straddling the short and long adductor muscles of the left thigh with micro-abscesses in the long adductor muscle.

The diagnosis of myositis was retained and the patient was put on antibiotic-therapy targeting Staphylococcus and BGN for 01-month. Abscesses drainage was not realized because of their millimetric-size and the difficulty of access due to the important adipose panicle.

The evolution was favorable with regression of pain and biological-inflammatory-syndrome and resumption of walking.

**Conclusion:** Our observation underlines the value of early diagnosis of infectious myositis. The initial presentation can be atypical. Targeted complementary examinations allow to redress the diagnosis.

## Factors associated with seasonal influenza vaccination among Tunisian elderly, 2018- 2019

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### **ABSTRACT**

**Introduction:** Influenza vaccination coverage remains low among the elderly even in many developed countries. Identifying factors influencing influenza vaccine uptake in the geriatric population is useful to design required interventions to improve vaccination coverage.

**Objective:** This study aimed to determine the factors associated with influenza vaccination among Tunisian elderly.

**Methods:** A national cross-sectional survey was conducted during the 2018-2019 influenza season. Older persons aged 60 years and over with chronic diseases were recruited in primary and secondary health care facilities. Data collection was performed using a standardized questionnaire. Multivariable logistic regression analysis was used to assess factors associated with influenza vaccination.

**Results:** In total, 1191 elderly people were included. Their age ranged from 60 to 99 years of and the sex ratio was equal to 0.6. Among participants, 19.4% (95% confidence interval (CI): [14.1- 21.9]) were vaccinated against influenza during the 2018-2019 flu season.

In multivariable analysis, receiving a recommendation for vaccination against influenza (OR=46.3; 95%CI [24.6-87.3]) and having enough information about the safety of influenza vaccine (OR=1,9; 95%CI [1.2-3.1]) were significantly associated with influenza vaccination.

**Conclusion:** Our findings suggest the need to strengthen influenza vaccination promotion strategies by emphasizing the crucial role of health professionals in educating the elderly to improve vaccination coverage in this high-risk population.

### Intentional poisoning by minoxidil: case report

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#### **ABSTRACT**

**Introduction:** Minoxidil, originally introduced as an antihypertensive drug, is currently used topically in alopecia. For dermal use, it is rarely associated with serious adverse effects, but its ingestion can be life-threatening. We report a case of severe minoxidil poisoning in a 75-year-old patient.

**Conclusion:** Minoxidil causes systemic hypotension through direct arterial vasodilation. Early and specific management improves its prognosis

### Case report:

This is a 75-year-old patient with hypertension, diabetes, followed by depressive syndrome who allegedly took 1000 mg of minoxidil for suicidal purposes. She consults after 2 hours of intoxication. On examination we found, TA 74/38, FC 125bpm and the state of the respiratory and neurological are stable. In the ECG: under offset st in septo-apico-lateral. Biology: renal insufficiency with urea at 9.88 mmol/l and creatinine at 191 mol/l (the reports were in favor of a functional ira), blood ionogram: without abnormalities, no cytolysis, troponin: first point is negative and second point is at 240 ng/l, lactate: 0.99 mol/l. The patient had volemic expansion and was admitted to the intensive care unit with norepinephrine up to 4 mg/h.

The evolution was favorable with elimination of electrocardiographic abnormalities, normalization of troponin and renal function and gradual withdrawal of catecholamines after 5 days.

### Lipid profile in elderly hemodialysis patients

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### **ABSTRACT**

**Introduction:** The lipid profile in dialysis is frequently disturbed. It is characterized by a disturbance in the metabolism of plasma lipoproteins resulting in very atherogenic lipid anomalies.

The purpose of this study is to expose lipid abnormalities in elderly dialysis patients.

**Methods:** This is a descriptive study including 25 elderly patients on chronic hemodialysis. We compared the lipid parameters versus young patients including total cholesterol, triglyceride, LDL Cholesterol and HDL cholesterol. Impedancemetry was performed to assess the distribution of fat, water and muscle mass.

**Results:** Dyslipidemia was noted in 71.4% of elderly patients without a significant difference compared to young group (0=0,94). Despite the lack of taking statins in these patients, the lipid balance was no far disturbed. In fact, the mean cholesterol level was 3.6 mmol/l AND the LDL cholesterol level was on average 1.98 mmol/l. The mean of fat mass was 40  $\pm$  15%, more observed among elderly patients than young ones (30  $\pm$  10%, p=0,08).

**Conclusion:** The disturbance of lipid balance is a frequent problem in elderly hemodialysis patients representing a burden of modifiable cardiovascular factor. It imposes a regular monitoring of these parameters in this population.

### Lung ageing in elderly patients with chronic obstructive pulmonary disease

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### **ABSTRACT**

**Introduction:** The prevalence of chronic obstructive pulmonary disease (COPD) is increasing, mainly in elderly. It causes anatomic and functional lung damage.

**Objective:** To investigate the relationship between lung age (LA) and COPD severity degree.

**Methods:** A cross sectional study included 93 COPD patients over 65 years. They underwent spirometry and the LA was estimated using first second expiratory volume (FEV1), body mass index (BMI) and body surface area. COPD severity was assessed by GOLD classification.

Comparison of LA in the different GOLD stages was processed with ANOVA test.

**Results:** Median age was 71 [67-75] years. The mean BMI was  $25.9 \pm 5.4$  Kg/m2. The means of FEV1 before bronchodilator test and LA were respectively  $38 \pm 14$  % and  $81 \pm 12$  years. COPD degree of severity, according to GOLD classification, was mild (stage 1) in 2.2%, moderate (stage 2) in 42.4%, severe (stage 3) in 35.9% and very severe (stage 4) in 19.6% of the patients. Mean LA increased significantly with the advancement of GOLD stages (p=0.01).

**Conclusion:** COPD severity reflects accelerated lung aging in elderly. Smoking cessation stops LA decline and, therefore, is a good surrogate of anti-aging treatment in elderly.

### Metformin and cardiovascular risk in diabetic patients

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### **ABSTRACT**

**Introduction:** Cardiovascular complications remain the leading cause of death in diabetic patients, particularly in elderly subjects.

Metformin is the first-line oral anti-diabetic drug used in the treatment of type-2 diabetes and is believed to protect against these complications.

Aim: Assess the effect of Metformin in the prevention of cardiovascular-risk according to the dosage and duration of diabetes.

**Methods:** Retrospective study including patients followed for type-2 diabetes aged over 65 who consulted the Nutrition department C of the National Institute of Nutrition – Tunis during a 2 years period (01/01/2020 - 31/12/2021).

**Results:** On a total of 174 patients, the mean age was 68.3±13.9 years with a sex-ratio of 1.25.

The most notable co-morbidities were: hypertension in 102 patients (58.6%) and dyslipidemia in 138 patients (79.3%). Active smoking and overweight were both noted in 77 patients (44.3%).

The mean duration of diabetes was  $11\pm5.4$  years with Metformin intake for  $9.4\pm3.3$  years at a mean dose of  $1894.7\pm612$ mg/day.

The cardiovascular-risk was as follows: 36.7% very high, 28.7% high, 12.8% moderate and 21.8% low.

High to very high cardiovascular-risk were significantly correlated to an extended duration of diabetes (p<0.001).

Patients treated with Metformin had low (p=0.018) and moderate cardiovascular-risk (p=0.034).

**Conclusion:** Metformin is the primary treatment in the management of type-2 diabetes. Our series attests to the association between its use and cardiovascular-risk reduction.

## Mortality in elderly people hospitalized with SARS-CoV2 pneumonia

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#### **ABSTRACT**

**Introduction:** COVID-19 infection is particularly frequent and severe in elderly subjects.

**Aim:** To identify the clinical and paraclinical parameters associated with excess mortality in elderly patients hospitalized for COVID-19 pneumonia.

**Methods:** This is a retrospective study conducted in the Covid unit of the University Hospital Taher Sfa rin Mahdia from January 2020 to March 2021 of patients hospitalized with confirmed SARS-CoV2 pneumonia. The patients were subdivided into 2 groups: a group of deceased (G1) and a group of survivors (G2).

**Results**: We collected 72 patients with a predominance of women (54%). In G1, the average age of the patients was higher (79 vs 72 years), smoking intoxication was more important, the inflammatory syndrome was more evident and the average creatinine was more altered (113 vs 85 Umol/l in G2), the average duration of hospitalisation in

the Covid unit was more prolonged in G1 ( $13\pm5$  vs  $10\pm4$  days in G2). The results revealed a correlation between the death rate and the presence of cardiovascular comorbidities such as hypertension and coronary insufficiency, initial acute respiratory failure, biological inflammatory syndrome and lymphopenia (p <0.05).

**Conclusion:** Our work has made it possible to associate cardiovascular comorbidities, the initial clinical and biological presentation with excess mortality in geriatric cases of Covid pneumonia. The identification of these factors could help clinicians to recognise patients at risk of poor prognosis.

## Synchronous association of prostatic adenocarcinoma and urothelial carcinoma in the elderly subject: a case report

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### **ABSTRACT**

**Introduction:** The simultaneous occurrence of prostate cancer and bladder cancer in an elderly subject poses a problem for its therapeutic management. The frequent coexistence of bladder tumor and prostate cancer could be explained by a common pathway of carcinogenesis between the two pathologies.

**Objective:** Describe the clinical, therapeutic and evolutionary aspect of a case treated at the radiotherapy department of cancer center Tlemcen Algeria for a prostatic adenocarcinoma and a urothelial carcinoma.

**Observation:** This is a 73 y.o. elderly patient who presented with a prostatic adenocarcinoma classified as T3aN0, Gleason score 8(4+4), initial PSA of 18ng/ml with a urothelial carcinoma classified as T2aN0. A thoracic-abdominal CT scan and a bone scan were ordered and returned normal. Hormone therapy was started followed by locoregional radiotherapy. The two predicted volumes (PTV), PTV1 and PTV2, received a dose of 46Gy and 60Gy respectively. PTV1 included the prostate, seminal vesicles, bladder, and pelvic lymph node areas, and PTV2 included the prostate and bladder. After a one-and-a-half-year

follow-up, the evolution was marked by a complete disappearance of the bladder tumor and a PSA level collapsed to 0.04 ng/ml. Acute grade 2 gastrointestinal and urinary toxicity was observed and no late toxicity was noted.

**Conclusion:** A specific geriatric evaluation is necessary to make the right therapeutic decision.

## Nurses' perceptions and practices concerning family-centered care of the patient at the end of life

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### **ABSTRACT**

**Introduction:** The end of life in a hospital environment is a painful experience for the family. The purpose of the family-centered care is to maintain the dignity of the patient and to support the family in their grief.

**Aim:** identify nurses' practices and perceptions of family-centered care of patients at the end of life.

**Methods:** It was a cross sectional study, conducted from January to February 2020 using a self- administrated questionnaire among nurses practicing in Farhat Hachad and Sahloul university hospitals.

**Results:** A total of 50 nurses participated. The average age was 45.1 with sex ratio (M/F) = 0.35), 56% had a professional experience of 5 to 10 years. Most nurses (90%) have been confronted with the situation of a family with a patient at the end of life and 88.44% of them stated having difficulties in managing this situation. Most of participants reported that the nurse's role with these families is to inform them about patient's condition, diagnosis and treatment (80%), and to educate them to provide good care for the patient (78%).

However, supporting them morally was only reported in 34% of cases. Reasons of not practicing family-centered care according to participants were the excessive workload (96%) as well as the lack of knowledge and skills regarding family-centered care (70%).

**Conclusion:** It is necessary to improve nurses' training about family-centered care and to promote the conditions that favor the quality and effectiveness expected of this type of intervention.

### Falls prevention in older people: what can nurses do?

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### **ABSTRACT**

**Introduction:** Falls in hospitals are the most frequently reported incidents among all safety accidents and can lead to significant complications in patients. Despite the significant burden of this problem, prevention strategies are not prioritized in the policy agendas of governments in low- and middle-income countries.

**Aim:** To describe the nursing staff's practices about fall-preventing interventions among elderly.

**Methods:** This was a descriptive cross-sectional study, conducted from May to June 2020 among nurses in six departments of Sahloul Hospital (cardiology, general surgery, physical medicine, internal medicine, neurology and orthopedics) and the ophthalmology department of Farhat Hached through a self-administered questionnaire

**Results:** A total of 70 nurses had participated in the study. The mean age was 35 years old with a feminine predominance (60%). Of the total number of participants, 68.6% had experienced inpatient falls and 57.1% had participated in educational programs on fall prevention. The majority of respondents (87.1%) thought that these falls were preventable. The 2/3 (65.7%) did not evaluate systematically the risk of falls.

The nursing role in fall prevention included obtaining the supplies (cane, bed alarm, ...) needed to prevent patient fall (77.14%), applying medical orders as needed (67.14%), applying preventive and curative measures for osteoporosis (50%) and screening visual deficiency (50%).

**Conclusion**: Our findings raise an urgent need for interventions to increase knowledge and awareness of falls and fall prevention among nurses. Moreover, regular assessments of functional disabilities and hazardous environmental conditions, as well as the provision of prevention programs, are potential ways to prevent falls.

## Therapeutic non-adherence a complex issue in chronic hemodialysis patients

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### **ABSTRACT**

**Introduction:** Therapeutic compliance corresponds to the degree of concordance between the patient's behavior and the recommendations of his doctor. Non-adherence to treatment predispose to high risk of mortality and increases health costs.

**Aim:** assess the level of compliance in elderly chronic hemodialysis patients and to identify the predictive factors of poor compliance

**Methods** A cross-sectional study was conducted in hemodialysis center in CHU TaherSfarMahdia. Medication adherence was assessed in 61 hemodialysis patients using a "compliance assessment test" quiz comprising six questions to which the patient must answer yes or no.

**Results:** Twenty five elderly patients were enrolled. The mean age was  $73 \pm 7.8$  years with a sex ratio M/F of 0.56. Adherence was poor in 16 % of patients, average in 40% of patients while 44% were good adherents. Polymedication and missing of treatment were the leading causes of nonadherence.

In univariate analyses, the socio-economic level affected significantly the compliance in elderly group as well as high comorbidity score (Charlson) (p< 0.04) and diabetes status (p = 0.04). No significant difference was objectified between elderly and young group in term of adherence to treatment

**Conclusion:** Compliance is a dynamic behavior that is difficult to predict and requires constant monitoring. In our hemodialysis center it turned out to be good; we must insist on the therapeutic education of patients and minimize the list to the necessary.

### "What bothers me is not my age":

## Frequency and determinants of malnutrition in chronic hemodialysis patients

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#### **ABSTRACT**

**Introduction:** Malnutrition is often linked to the reduction of food intake but also to inflammation and atheromatous cardiovascular lesions. Although it is known to be associated with high morbidity and mortality in elderly chronic hemodialysis patients, data are paradoxically rare in Tunisia.

**Methods:** A cross-sectional study was conducted in the hemodialysis unit in CHU Tahe rSfar Mahdia. The nutritional status was assessed using biological (albumin and protein) anthropometric (current weight and BMI) data and Geriatric Nutritional Risk Score (GNRI). The impedancemetry was used to assess the distribution of fat, water and muscle mass.

**Results:** Twenty five elderly patients were evaluated. The mean age of our patients was  $73 \pm 7.8$  years with a sex ratio M/F of 0.56. The frequency of malnutrition was 32.4% (including 17.2% low risk, and 3.4% high risk). The biological data revealed in the undernourished patients a mean protein level of  $64.77 \pm 7.56$  g/l while the mean of albuminemia was  $33.97 \pm 4.11$  g/l. In the anthropometric data, themean weight was  $63.6 \pm 10$  Kg. The impedance data revealed a mean fat mass of 27.3%, a mean water mass of 53.8% and a mean muscle mass of 38%. The factors associated with malnutrition were: low frequency of dialysis (p=0.01), inflammation(p=0.005) and anemia (p=0.01).

**Conclusion:** Nearly a third of elderly patients in our center suffer from malnutrition and are at high risk of mortality. Earlier diagnosis requires regular and systematic monitoring of nutritional markers especially among elderly group.

### Prevalence of psychiatric disorders in the elderly: Study of 50 cases

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### **ABSTRACT**

**Introduction:** Older people make a significant contribution to society. While most are mentally healthy, many are at risk of developing mental and neurological disorders.

**Aim:** study the prevalence of psychiatric disorders in the elderly.

**Methods:** It is a retrospective, descriptive study conducted at the mental health department of Mongi slim hospital over a six-month period. Various consultants, old and new to the service were included.

**Results:** 50 patients were included.

The average age of patients was 67 years with a minimum of 60 years and a maximum of 86 years.

20 patients (40%) had no significant disease history, 9 patients (18%) were followed for HTA, 6 patients (12%) were followed for diabetes, 4 patients (8%) had a stroke and 3 patients (6%) were followed for Asthma/COPD.

The most common diagnosis was depressive syndrome in 16 patients (32%), 8 patients (16%) had an adjustment disorder, 5 patients (10%) had hallucinatory psychosis, 4 patients (8%) had bipolar disorder, 3 patients (6%) had anxiety disorder, 3 patients had dementia and 3 patients had somatoform disorder.

**Conclusion**: The prevalence of psychiatric disorders among the elderly is increasing worldwide. This is why it is important to inform and sensitize doctors to the specificities of the elderly in order to improve the quality of care and optimize their care, which often requires the involvement of the family.

## Depression and Obesity in the elderly: A cross-sectional study about 110 Tunisian patients

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### **ABSTRACT**

**Introduction:** Depression in the elderly is associated with high somatic comorbidity. The association of depression and obesity is an aggravating factor in the thymic symptomatology and somatic complications of overweight.

**Objective:** The aim of this study is to investigate the relationship between obesity and depression in a population of elderly Tunisian patients.

**Methods:** This is a cross-sectional study conducted in a population of 110 elderly subjects followed up in the outpatient department at the Razi Hospital in Tunis. Depression was diagnosed according to DSM 5 criteria and its severity was measured using the Hamilton scale. Obesity was defined according to body mass index (BMI in kg/m2. Obesity was further stratified into obesity class I (BMI 30 to 34.9), obesity class II (BMI 35 to 39.9) and obesity class III (BMI 40).

**Results:** Significant obesity was observed in 43.6% (n=48) of the depressed subjects. Type III obesity was observed in 12.7% (n=14) of the patients. This obesity was significantly more present in men 68.81% (n=39). Severe depression was correlated with more overweight. The severity of depression and the severity of obesity were significantly correlated. The co- occurrence of depression and obesity was more correlated with the existence of anxious characteristics, history of suicide attempt, and history of previous depression.

**Conclusions**: In all sample populations, the association between depression and obesity was modified by gender, age, and clinical features of depression. Further research is needed to elucidate the relationship between obesity and depression in older adults.

## Profile of elderly hospitalized patients with covid-19: a monocentric retrospective study

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### **ABSTRACT**

**Introduction:** Various international institutions consider advanced age a risk factor for severe forms of COVID19 and for death from this disease. We aim to Investigate the clinical, biological, radiological features and outcomes in elderly patients with COVID-19.

**Methods**: this is a retrospective analysis of elderly patients (≥ 60 years), with new coronavirus pneumonia who were treated at Ibn Al Jazzar university hospital in Tunisia, from September 2020 to February 2021.

**Results:** Of the 256 COVID-19 patients, 177 were elderly (69%). Among them, 110 were male (62%), and the medium age was 73 years  $\pm$  9. Common symptoms were: dyspnea (76%), fever (50%) and dry cough (47%). Mortality rate was 37% (n=65). The median length of hospitalization was 10 days  $\pm$  6. Consultation time was 7 days  $\pm$  5. The main biological disturbances in the elderly were elevated

C-reactive protein (CRP) (64%), kidney failure (26%), hyperleukocytosis (27%) and thrombocytopenia (11%). The computed tomography (CT) chest was performed in 70% of patients, and was pathological in 60% of cases. The mean parenchymal involvement at the CT chest was 48%  $\pm 23$ . Compared with the young and the middle-aged patients, the elderly had a higher proportion of hypertension (p=0.007), cardiovascular diseases (p=0.001), higher proportion of elevated D-dimers (>500) (p=0.04) and more common of severe cases (p <  $10^{-3}$ ).

**Conclusion:** The proportion of severe cases in elderly COVID-19 patients is higher than that in young and middle-aged patients, and this highlights the importance of an early consultation in these elderly to avoid serious complications.

## Impact of long-term use of inhaled corticosteroids in elderly patients with chronic obstructive pulmonary disease

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**ABSTRACT** 

**Introduction:** The use of inhaled corticosteroids in the treatment of chronic obstructive pulmonary disease (COPD) has often been controversial. Their indication would be justified to reduce inflammation and its systemic impact.

**Aim**: evaluate the impact of inhaled corticosteroids (ICS) in elderly patients with COPD.

**Methods**: Retrospective study conducted in pulmonary department I, Abderrahmane Mami Hospital of Ariana, over a period extending from January 1998 to December 2021. The patients included were with COPD and whose age was 65 years and more.

**Results**: Ninety-seven patients were included with a mean age of 74 years [65,95] and a sex -ratio of 8.7. All patients were smokers, among them, 87 (89.7%) were active and 10 (10.3%) were ex-smokers. Forty-five patients (46.4%) were treated with ICS, including 5 with asthma-COPD overlap. Impaired lung

function with FEV1 grade 3 was correlated with ICS use (p=0.01). There was no difference in the number of hospitalizations per year for acute COPD exacerbations between patients using or not ICS.

Hospitalization for lung disease was more frequent in patients treated with ICS (p=0.05). Progression to death was associated with ICS use (p=0.001).

**Conclusion:** In our study, we did not find any benefit from the use of ICS in elderly patients but an increase in the risk of pneumonia and mortality. It would therefore be judicious to use them in specific indications.

### COVID-19 hospitalization and mortality among elderly patients: An observational study in Sfax gouvernante

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#### **ABSTRACT**

Introduction: During the COVID-19 pandemic, an age-associated vulnerability in the burden of disease has been uncovered.

**Aim:** determine COVID-19 hospitalization and mortality rates and its associated factors among elderly patients.

**Methods:** We conducted an observational analytical survey in January 2021 using telephone interview method in Sfax governorate. The study patients were the exhaustive list of patients aged ≥ 65 years and tested positive for SARS-COV 2 in October 2020.

**Results:** Overall, 289 were included in this survey. The median age of patients was 73 years (Q1-Q3=68-80 years). The sex ratio (M / F) was equal to 1.17. The clinical presentation of COVID-19 was severe in 42 patients (14.5%), moderate in 78

patients (27.0%), mild in 148 patients (51.2%), and asymptomatic in 21 patients (7.3%). The Computed tomography (CT) scan showed COVID-19 signs in 102 patients (35.3%). One hundred and two patients (35,3%) required hospitalization and 35 patients (12.1%) died. The most frequent cause of death was the respiratory distress syndrome (68.5%). Factors associated with COVID-19 hospitalization were male gender (OR=2.1 [1.3-3.2]; p=0.014), cardiac disease (OR=1.9 [1.1-3.7]; p=0.04) and diabetes (OR= 2.1 [1.2-3.7]; p=0.007). Factors associated with COVID-19 mortality were cardiac disease (OR=2.9 [1.3-6.4]; p=0.007) and regular physical activities (AOR=0.2 [0.1-0.8]; p=0.013).

**Conclusion:** Our data indicates high hospitalization and mortality rates among elderly peoples. Medical follow-up and appropriate management at the onset early symptoms would prevent late hospitalization and death.

# Obstructive sleep apnoea in the elderly: assessment of anxiety and depression disorders

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#### **ABSTRACT**

**Introduction :** For the promotion of elderly quality of life, geriatric is interested in different physiological and pathological particularities of aging. Obstructive sleep apnoea (OSA) is a common disorder in older people: its prevalence was between 13 and 32% of people over 65 years, This chronic sleep disordered breathing is characterized by repetitive episodes of airflow reduction (hypopnea) or cessation (apnea) due to upper airway collapse during sleep. It is commonly associated with an excessive daytime sleepiness, memory impairment and cognitive disorders such as anxiety and depression.

**Aim:** Assess the prevalence of anxiety-depressive disorders and its determinants in the elderly.

**Methods:** This was a cross-sectional study including elderly patients diagnosed with OSA. All patients underwent overnight monitoring with a polygraphy in the sleep unit of Pulmonology Department. Daytime sleepiness was assessed with the Epworth Sleepiness Scale (ESS) and psychological state with the hospital anxiety and depression scale (HAD).

**Results:** This study included 37 subjects. The mean age was 71.03  $\pm 4.42$  years (female/male :24/13). The mean apnea hypopnea index [AHI] was 37±17 events/hour. The majority of patients presented nocturnal snoring (86%) and excessive daytime sleepiness (75.6%). The average Epworth scale was 5.86 ±4. Comorbidities were dominated by HTA (70%) and diabetes (48,6%). Twenty-nine subjects (78.3%) were diagnosed with morbid obesity. The half of the patients (54%) showed anxiety with an average scale 6.4±4.2 and 32.4% presented a depression with an average depression scale 5.3±4.4. Anxiety on elderly OSA was higher on female gender (p=0.08) and statistically associated with a higher ESS (P=0.001) and nocturnal insomnia (p=0.02). A high prevalence of depression were related to female gender (p=0.018), comoribidities : HTA (p=0.04), diabities(p=0.03) and a higher ESS (P=0.03).

Neither the severity of OSA measured by the AHI nor BMI were related to anxiety and depression on elders.

**Conclusion:** The presence of anxiety and depression can be predicted by gender, comorbidities, insomnia, and a higher Epworth scale with excessive daytime sleepiness without having any statistically significant difference with the severity of OSA.

# Prevalence and risk factors of painful diabetic neuropathy in the geriatric population

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#### **ABSTRACT**

**Introduction:** Distal and symmetrical peripheral polyneuropathy is the most frequent type of diabetic neuropathy. Its painful form (PDN) is the most common cause of non-traumatic neuropathic pain and can place a heavy burden on elderly patients' lives.

**Aim:** To determine the prevalence of PDN and to identify the different risk factors of its occurrence.

**Methods:** This was a cross-sectional study conducted in the endocrinology department of Hedi Chaker hospital Sfax Tunisia, in which we collected elderly patients with type 2 diabetes. The DN4 Questionnaire was used to diagnose PDN.

**Results:** A total of 52 elderly patients were recruited. The mean age of patients was 70.6 years with a slight female predominance (55.8%). The mean duration of diabetes' evolution was 13.54 years. The average of HbA1c level was 10.35%.

Among diabetes' complications, PDN was the most frequent in our study (53.8%). The mean DN4 score was 3.83. Significant predictors of PDN included long history of diabetes (p=0.04), high

levels of glycated hemoglobin (p=0.04) and insulin therapy (p=0.029), in addition to some comorbidities such as sweating disorders and history of leg ulcer. Some features of foot examination were also found to be risk factors of PDN namely trophic disorders, dry skin, hyperkeratosis, abolition of Achilles reflexes and positive monofilament test.

**Conclusion:** This study demonstrated that the prevalence of PDN is high among our geriatric population. This emphasizes the need to screen periodically diabetic elderly patients using a simple instrument such as the DN4 questionnaire and to educate at risk patients about predictors of PDN regularly.

### The impact of Covid-19 infections in the geriatric population of KSAR HELLAL

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#### **ABSTRACT**

**Introduction:** The COVID-19 pandemic overwhelmed the global health system and was particularly devastating among the geriatric population.

**Aim:** To compare the prevalence and factors associated with COVID-19 infection among the elderly population of Ksar Hellal compared to the population under 65 years of age.

**Methods:** A cross-sectional study, conducted between September 2020 and March 2022 among the population tested positive for COVID \_19 in Ksar Hellal.

**Results:** In total, 2875 people tested positive for COVID-19, 14.4% of whom were over 65 years of age. The mean age was 44.52 years [1-98] with a sex ratio of 0.62. The asymptomatic form was less frequent in the elderly population. The percentage of hospitalization in this population was 62% compared to 41% in the population aged less than 65 years. The main reasons for hospitalization were: acute dyspnea in 57%, diabetic Ketoacidosis in 24%. The pulmonary problems were severe in 61% among the geriatric

population compared to 32% in the other population. The mortality rate was 66.7% among the elderly population while the death rate was 33% among the other population.

**Conclusion:** According to this study, the geriatric population was the most affected by COVID-19 infection (p=0.03) with a higher rate of hospitalization, after-effects and mortality. Which emphasizes the benefit of reinforcing education on barrier measures and of encouraging vaccination among this population.

### Clinical characteristics of COVID-19 in elderly patients

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#### **ABSTRACT**

**Introduction:** During the current COVID-19 pandemic, older adults have been reported to be at higher risk of mortality, highlighting their vulnerability to viral infections.

**Aim :** Compare the clinical characteristics and outcomes of COVID-19 between elderly and non-elderly patients.

**Methods:** This is a retrospective observational study of COVID-19 patients who were hospitalized in our department from October 2020 to October 2021. The research sample was divided into two groups: elderly patients (age: 65 years and more) and non-elderly patients (age: 18-64 years).

**Results:** There were 612 COVID-19 patients with 286 elderly patients (46,73%) and 326 non-elderly patients (53,26%). There was no statistically significant gender difference between the two groups (p=0,698), with more females than males.

The most frequent symptoms reported by elderly patients were fatigue (80%), dyspnea (78,8%), cough (66%) and fever (64%). Diabetes mellitus, hypertension and coronary heart disease were

more frequent in elderly patients than in younger patients (p<0,001). There were statistically significant differences in the values of neutrophil-tolymphocyte ratio, blood urea nitrogen, serum creatinine, C-reactive protein, troponin and D-dimer levels between the elderly and non-elderly groups (p<0,05).

Length of hospital stay was significantly longer among elderly patients (p=0,006). Intensive care unit admission and death rates were significantly higher in elderly group (p<0,001).

**Conclusion:** COVID-19 has different clinical and laboratory characteristics in elderly and non-elderly populations. The high mortality risk in elderly patients with COVID-19 supports prevention and early clinical care for elderly populations.

## Health related life quality and chronic obstructive pulmonary disease in elderly

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#### **ABSTRACT**

**Introduction:** Chronic obstructive pulmonary disease (COPD) is prevalent in the elderly population and could increase morbidity and mortality due to different respiratory complications.

**Aim:** This study aimed to assess the impact of COPD on the health related life quality of elderly.

**Methods:** A cross sectional study including 135 COPD patients was conducted in the Functional Exploration department of Farhat Hached Hospital. Two groups were identified: G1 (elderly, n=64) and G2 (young adults, n=71). All patients answered St George questionnaire (SGQ) for life quality assessment and underwent spirometry. First second expiratory volume (FEV1) and forced vital capacity (FVC) were measured.

**Results:** Mean age was  $72\pm6$  years in G1 and  $56\pm6$  years in G2. Both groups were male dominated and had similar body mass index. FEV1 and FVC in percentage were comparable in both groups (p>0.05). Mean SGQ was significantly higher in G1 (38 $\pm$ 11 vs. 33 $\pm$ 13, p=0.039). In G1, SGQ was strongly correlated to the decline of FEV1 and FVC in percentage (p<0.001; r=-0.522 and p=0.001; r=-0.461 respectively).

**Conclusion:** Diminished life quality in COPD is more apparent in the elderly and strongly correlated to the deterioration of lung function. Elderly are, therefore, a population at high risk of exacerbations and multiple hospitalization.

# Early career oncologists' beliefs and attitudes towards older patients

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#### **ABSTRACT**

**Background**: The proportion of older people is increasing worldwide, especially among cancer patients. Stereotypes associate aging with dependence and lead to negative attitudes toward older people.

**Aim:** We aimed to identify the attitudes of Tunisian early career oncologists towards the older patients.

**Methods:** It was a cross-sectional study conducted among early career oncologists. Data were collected through anonymous surveys. Oncologists were asked about their beliefs about older patients, the characteristics of the oncologic care of an older person and emotions related to caring for older patients.

**Results:** Early career oncologists (N=82) agreed that the older patient is fragile and vulnerable (89%), often have physical limitation (81.7%) and is limited by cognitive impairment (70.7%). The residents' attitudes and beliefs were significantly different from practitioners, regarding the following beliefs: older patients are limited by cognitive impairment (p=0.035), they often have memory problems (p=0.039), they are often dependent on other people to meet their needs (p=0.043), they adhere to their treating oncologist (p=0.032) and they are too fragile and vulnerable to support

cancer treatments (p=0.045). A multivariate analysis retained as main beliefs or attitudes significantly associated with the rank of the oncologist: the belief that older patients are limited by cognitive impairment (p=0.039) and that they often have memory problems (p=0.39).

**Conclusion:** Early career oncologists need to be equipped with special skills in geriatric oncology. Integrating clinical training in geriatric oncology, as well as seminars or workshops into the oncologic curriculum should be recommended.

### Aging Behind Bars: What are the Risks?

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#### **ABSTRACT**

**Introduction:** The geriatric population in prisons due to long sentences and/or life sentences is constantly increasing, constituting a health, legal and social problem. What risks are involved?

**Aim:** evaluate clinical and psychological impacts in elderly subjects in a prison environment.

**Methods:** We followed 150 subjects aged over 65, detained in the Civil Prison Borj El Amri, over a period of two years from 2019 to 2021, having had varying sentences ranging from 7 years to all the time.

#### **Results and Discussions:**

80% of our population have chronic diseases, hypertension in 73% of cases, diabetes mellitus in 67% of cases, cardiovascular diseases in 65% of cases, respiratory diseases in 10% of cases and rheumatic diseases in 90% of cases. Psychiatric disorders only affected 30% of cases increased by depression, including one case of unsuccessful suicide attempt. Decompensation of their morbidity was frequent.

All of them have geriatric syndromes such as hearing, visual and cognitive decline, incontinence and reduced mobility, but no falls were noted during this period. They had no incidents of pushing or violence. Geriatric syndromes are linked to health and the environment, and are accelerated by stress and confinement. Incarceration puts this fragile population at greater risk of despair, loneliness, and depression. The time spent in prison aggravates and increases the medical problems, which encourages us to develop specific programs to improve the care of this category and to create penitentiary geriatric units.

**Conclusion:** Elderly detainees engage in a variety of self-care strategies, including: access to resources and support; to stay positive; diet and weight management; engaging in physical activity; and self-protection. The development and evaluation of programs to improve the self-care of older prisoners with chronic conditions and to facilitate the health promotion is in order.

# Prescription of level II and III analgesics in geriatrics: frequency, modalities, and impact of specialized training

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#### **ABSTRACT**

**Introduction:** Pain in geriatric patients is a frequent situation. However, prescribing opioid pain-killers is variable.

**Aim:** To study the frequency and the modalities of prescription of opioids and appreciate the impact of specialized trainings.

**Methods:** A distributed questionnaire, based on a literature review.

**Results:** Among our 328 participants, 64.3% were women (mean age=37.1±10.1 years). Three quarters (74.1%) were registered physicians and the rest were in training. Most worked in the public sector (87.7%), with varying degrees of experience (8.8±9.3 years). Prescribers were divided between general medicine (35.7%), medical (38.4%) and surgical specialties (7.9%), while a minority had specialized training in geriatrics (18.9%), pain management (16.2%) and/or palliative care (4%). In this sample, 11% of participants reported never prescribing level II analgesics, while 65% used them sometimes and 24% often. For level III analgesics, 34% of participants reported never prescribing them, 55% prescribed them sometimes, and 11% used them often. Self or hetero-assessment scales

were used systematically by 38%, 24% always assessed the risk of falling, 25% always increased the dose progressively. Within our sample, specialized training was associated with a higher frequency of prescribing level II and III analgesics (30.5% and 18.1% respectively, against 19.5% and 11.5%) and better compliance with good practice: use of selfor hetero-assessment scales (45% against 32%), gradual dose increase (29% against %22), and evaluation of the risk of falling (31% against 18%).

**Conclusions:** Prescribing analgesics in geriatrics can be delicate. Physicians could solidify their mastery of the subject through additional training.

### Prescription of level II and III analgesics in geriatrics: fears and difficulties

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#### **ABSTRACT**

**Introduction:** Pain management in the elderly is both essential and delicate, given certain particularities of the geriatric population such as the comorbidities and. Understandably, some practitioners feel inhibited from prescribing level II and III analgesics, and report difficulties in this regard.

**Aim:** To explore the fears and difficulties experienced by practitioners when prescribing opioids

**Method:** Questionnaire based on a literature review.

**Results:** Among our 328 participants, 64.3% were women (mean age=37.1±10.1 years). Three quarters (74.1%) were registered physicians and the rest were in training. Most worked in the public sector (87.7%), with varying degrees of experience (8.8±9.3 years). Prescribers were divided between general medicine (35.7%), medical (38.4%) and surgical specialties (7.9%), while a minority had specialized training in geriatrics (18.9%), pain management (16.2%) and/or palliative care (4%). Concerning the fears that hindered level III analgesics prescription, fears concerned drug interactions (71.9%), adverse effects (89.6%), dependence (70.4%) and misuse (62.8%). With regard to the prescription of level II analgesics, 75% of patients feared drug interactions,

90% adverse effects, 48% dependence and 5% misuse. For 56% of the participants, the notion of bad experiences with the adverse effects of level II or III analgesics limited their prescribing. Difficulties encountered were dominated by significant adverse effects (50.9% and 49.1% for levels II and III respectively). Difficulties are rarely encountered for pain relief (22.5% and 12.5%) and compliance (22% and 20.4%).

**Conclusion:** The undesirable effects of level II and III analgesics and the difficulties of initiating treatment are not negligible in elderly subjects.

# Arterial hypertension in elderly patients with polycystic ovary syndrome: importance of early diagnosis and management of the syndrome

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#### **ABSTRACT**

#### Introduction:

Knowledge of the elements of the diagnosis of polycystic ovary syndrome (POS) allows the identification of affected patients, to intervene at the appropriate time and to prevent or treat possible cardiovascular complications, such as arterial hypertension, in short and long term.

#### Objective:

Study repercussions of the absence of POS diagnosis and early management in elderly women, especially in cardiovascular pathologies risk development and evolution.

#### Materiel and methods:

Prospective study among 12 private generalist physicians about 20 consulting female patients for with arterial hypertension and whose diagnosis of POS was made according to the criteria of the Rotterdam 2003 definition.

#### **Results:**

- Average age: 65 years.
- -Infertility found in 30% of patients and old menstrual disorders declared in 70%.
- 54% of patients showed signs of hyperandrogenism, 70% obesity and 22% associated metabolic disorders.
- In 16 patients, POS symptoms began to appear in teenage years.

#### **Conclusion:**

In front of a patient suffering of an/dysovulation, infertility, hyper-androgenism, obesity,... and after excluding other causes, doctors must think of PCOS. Its natural history begins at puberty with gynecological and dermatological manifestations which increase with age to be associated with metabolic complications and cardiovascular pathologies. Appropriate lifestyle measures and early referral to a specialist doctor allows adequate syndrome management and possible adulthood complications prevention, and this, such as the case of our patients in whom arterial hypertension could have been avoided if identification and an adequate management of the syndrome had been made early.

# Aspergillosis of the temporomandibular joint as a complication of otitis externa in an elderly patient

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#### **ABSTRACT**

#### Introduction:

Septic arthritis of the temporomandibular joint (TMJ) is a very rare complication of otitis externa.

**Aim:** We describe a case of a 72-year-old man who developed aspergillosis of the TMJ following otitis externa.

#### **Case presentation:**

A 72-year-old man with a history of diabetes mellitus was admitted to our department for chronic otalgia. The diagnosis of otitis externa caused by Pseudomonas aeruginosa was initially made and an adequate antibiotic therapy was started. But, the outcome was unfavourable with persistence of otalgia and a severe pain in the TMJ. A facial and brain MRI was performed showing a temporomandibular arthritis. Histopathological examination of a surgical biopsy at the TMJ had concluded to aspergillosis. Aspergillus niger was isolated in the parasitological examination. The patient was treated with voriconazole for six months with a favourable outcome.

#### **Conclusion:**

This case report highlights the need to be aware of the possibility of invasive mycosis in elderly patients.

### BronchiectasiE in the elderly

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#### **ABSTRACT**

**Introduction:** bronchiectasis is defined as a permanent and irreversible increase in the size of the bronchi. The etiologies are multiple and the evolution is fraught with complications, particularly in elderly subjects.

**Aim:** We aim to describe the clinical, para-clinical and evolution are characteristics of bronchiectasis in elderly subjects.

**Materials and methods:** This is a retrospective descriptive study based on the records of patients followed up at the pneumology outpatient clinic from 2009 to 2022.

**Results:** We collected 32 patients. The average age was 73.84 years with a female predominance (56%). The average BMI was 26.48 kg/m 2. The functional respiratory signs were: Bronchorrhea (78%) followed by hemoptysis (20%).On chest CT, diffuse forms were predominant (65%). Bacterial colonisation by pseudomonas aerogenosa was present in 6 cases. Respiratory function tests revealed: a restrictive ventilator deficit in 21% and an

obstructive ventilator deficit in 18% of cases. The etiologies of bronchial dilatation were dominated by the sequelae of tuberculosis (53%). The mean number of hospitalisations in pneumology for exacerbation was  $1.97\pm3.35$ . The average number of hospitalizations in the medical intensive care unit was  $0.06\pm0.24$ . The inflammatory syndrome was evident in the stable state.18% of the patients (n=6) were in chronic respiratory failure, three of whom required long-termoxygentherapy.

**Conclusion:** Early and adequate management of bronchial dilatation is necessary to avoid and delay complications in elderly patients.

## Cardiopulmonary arrest in the elderly person in the emergency room

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**ABSTRACT** 

**Introduction:** The care of elderly person in the emergency faces several difficulties because of the multiple pathologies, varied prevalence of consultation patterns and the atypia of semiological approach

**Aim:** The aim of our work was to specify the epidemiological, clinical and therapeutic characteristics of elderly patients who are taken care for cardiopulmonary arrest.

**Methods:** Retrospective and descriptive study, in the period from 01/01/22 to 28/04/22. Including all patients over the age of 65 who presented a cardiopulmonary arrest intra or extra hospital and were admitted in the emergency department.

**Results:** During the study period, 61 patients were included; the mean age was 76  $\pm$  8 years with a sex ratio of 0.74. Nine patients were brought back with cardiopulmonary arrest, mostly transported (66%) by civil protection, 84.2% of elderly patients have presented the cardiopulmonary arrest in the emergency room. The most

common reason for admission was respiratory distress (63.9%), 50.8% had a medical history of diabetes and 29.7% had coronary heart disease. Measures taken in front of cardiopulmonary arrest: 88% cardiopulmonary resuscitation and 36.1% underwent oro-tracheal intubation. ACR was recovered in 10% of cases. Among the patients successfully resuscitated, 60% were proposed for transfer to intensive care, which was not carried out. The average length of hospitalization after recovered cardiopulmonary arrest was 23 hours. Mortality was 100%.

**Conclusion:** The management of cardiopulmonary arrest in the elderly constitutes a therapeutic challenge for the practitioner, of course, but also a dead end for orientation downstream of emergencies.

### Clinical and functional profile of COPD in elderly

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#### **ABSTRACT**

**Introduction:** Chronic obstructive pulmonary disease (COPD) is a prevalent disease in the elderly population with a high burden and mortality.

**Aim:** To determine the profile of patients over 65 years old followed for COPD.

**Methods:** Comparative cross sectional study included 240 COPD patients divided into two groups: G1 (subjects aged over 65 years, n=93) and G2 (young adults, n=147). Clinical and spirometric (first second expiratory volume (FEV1) and forced vital capacity (FVC) and their ratio) data were collected.

**Results:** Mean age was  $72\pm6$  years in G1 and  $49\pm12$  years in G2. Both groups were male dominated. Smoking cessation frequency was higher in G1 (51% vs 34%, p=0.024). Respiratory symptoms (mainly dyspnea, coughing and sputum) were similar in G1 and G2 (p>0.05). However, nasal symptoms were more frequent in G2 (44% vs 26%, p=0.024). Median increase of FEV1(%) and FVC (%) after bronchodilator were significantly higher in G2 (17% [7,30] vs 11% [4,19] p=0.001 and 14%

[4,27] vs 9% [3,19] p=0.037, respectively). Mean lung age was significantly higher in G1 (81 $\pm$ 11 vs 76 $\pm$ 16 years, p=0.005). G2 included significantly higher percentage of asthma- COPD overlap. Elderly patients seem to be more motivated to quit smoking.

**Conclusion:** Respiratory symptoms, pulmonary function and response to bronchodilator treatment are age dependent in COPD patients. COPD management should consider risks related to both COPD and ageing process to reach the targets required.

### Clinical forms of tuberculosis in the geriatric population

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#### **ABSTRACT**

**Introduction:** The incidence of tuberculosis is more important in the elderly population.

**Methods:** A retrospective study including patients with tuberculosis aged over 65 years hospitalized in the department of internal medicine/infectious diseases of the military hospital of Tunis.

**Results:** There were 31 patients with a mean age of 72.2 years and a sex ratio M/F of 0.72. In our study, 54% had a medical history, mainly diabetes (32%) and hypertension (16.1%).

Three patients had a family history of tuberculosis and 13 had a history of consumption of unpasteurized dairy products. The most frequent clinical signs were fever 83%, general deterioration 70% and night sweats 64%. The lymph node location was found in 16 patients, pleuropulmonary in 10 cases and osteoarticular in 9 cases. The involvement was multifocal in 8 cases. The diagnosis of tuberculosis was confirmed in 14 cases: by isolation of Mycobacterium Tuberculosis in 3 cases and by anatomopathological examination in 11 cases. All patients received an anti-tuberculosis treatment for an average duration of 12 months. Regarding adverse events, 7 patients presented hepatic cytolysis, 4 presented cholestasis

and 3 presented hyperuricemia. One patient presented dizziness related to ethambutol. The evolution was good in the majority of cases with a mortality of 16%.

**Conclusion:** The data show that in countries where tuberculosis remains endemic. Geriatric population is at higher risk of mortality and iatrogenia.

### **COVID-19** in elderly patients

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**ABSTRACT** 

**Introduction:** The symptoms of Coronavirus disease 2019 (COVID-19) vary among patients.

**Aim:** The purpose of this study was to investigate the clinical, biological and radiological characteristics, and outcomes of the disease in young versus elderly patients.

**Methods:** Retrospective study including COVID-19 patients hospitalized in the infectious diseases department between March 2020 and December 2021. The population was divided into G1 (patients aged < 65 years old) and G2 (aged 65 years or over). The clinical, biological and radiological characteristics, and outcomes were compared between the two groups.

**Results:** Overall, 451 patients were enrolled in the study. The population was divided into G1 (249 patients, 55.2%) and G2 (202 patients, 44.8%). There was no significant difference in terms of gender

(p=0.59). The comorbidities were significantly more frequent in G2 (p<0.001). Fever and headaches were associated with G1 (p=0.021 and 0.004 respectively. Digestive manifestations were similar on both groups. The white blood cell count, neutrophils, D-dimer, lactate dehydrogenase (LDH) levels were significantly higher in G2. There was no significant difference in radiological findings (p=0.95). G2 was significantly associated with unfavourable outcome (11% vs 26.6%, p<0.001) and mortality (6.3% vs 23.8%, p<0.001).

Conclusion: Although, our study showed that there was no significant difference in radiological findings on both groups, elderly patients were more likely to have severe COVID-19.

# COVID-19 infection: Epidemiological clinical characteristics and acquired-hospital infection among aged population at a Tunisian University Hospital

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#### **ABSTRACT**

**Introduction:** The management of hospital-acquired infections is one of the major challenges, posing a real public health problem especially among patients with SARS-CoV-2 aged over 65 years. The aim: Determine the epidemiological, clinical characteristics and the associated factors of hospital-acquired infections among COVID-19 elderly patients aged over 65 years and admitted at the University Hospital of Mahdia (Tunisia).

**Methods:** We conducted a retrospective study among patients hospitalized at the University Hospital of Mahdia with a confirmed diagnosis of COV-ID-19, from April 2020 to November 2021. We used "The RAPID CORE CASE REPORT FORM" developed by the World Health Organization.

**Results:** A total of 271 aging patients hospitalized during the four COVID-19 waves were recruited with a mean age of  $71.9 \pm 6$  years [65-98]. Among them, 43.2% had pre-existing diabetes, 52.4% had hypertension and 12.5% had chronic respiratory disease. A chest CT was conducted in 64.6% in which 41.3% revealed severe lung involvement (50%). About

16.8% of patients needed intubation once admitted and 38.1% needed intubation during hospitalization.

The overall rate of hospital-acquired infection was 22.1%. Pneumonia was the most common site (60%). Hospital-acquired infection was significantly associated with invasive ventilation (OR= 26.7, 95% Cl= 5.6-125.5, p < 0.001), secondary intubation (OR=12.1, 95%Cl=4-36), p<0.001) and longer stay ( $\geq$ 14 days) (OR=8,5 95%Cl=2.8-25.1, p < 0.001). Hospital-acquired infection-free survival was found to be lowest among aging patients who needed mechanical ventilation (p<0.001).

**Conclusion:** Interventions to control risk factors are needed to prevent hospital-acquired infections and improve the prognosis of Covid-19 aging patients.