

Review Article

Quaternary Prevention and / or Hypermedicalization. Fragility (Disease) and / or Lobbying

Colucci G^{1*}, Robusto F¹, Colucci E¹, Zamparella M¹, Montorsi S¹, Fiume D¹, Spinelli G¹, Iacovazzo P¹, Minardi M¹, Colucci V¹ and Giliberti C²

¹MedOnLine-Statte, Statte (TA), Italy

²Italian Rice University, Houston, Texas, USA

Abstract

Approximately 15-20% of patient-doctor meetings are defined by the latter as difficult. Difficult patients are defined as those who elicit strong negative emotions from their physicians. If not acknowledged and managed correctly, these feelings can lead to diagnostic errors, unpleasant confrontations, and troublesome complaints or legal claims. There are no difficult patients but difficult relationships due to characteristics of the patient, the doctor and / or influences of the society.

Aim of the study: Evaluate the relationship of the Difficult Patient (DP) with the Over Medicalization (OM) and how much it can affect the Clinical Practice (CP) and Public Spending (PS).

Materials and methods: Workgroup of the vocational training of general practice of Apulia Region has developed an evaluation form on DP and OM, which was administered to Doctors, who attended the General Practice's (GP) office.

Results: 121 participating doctors. In the abscissae we have formulated three Items (excessive use and little use of health services, excess of medicines causes damage to health, use of validated medical practices can potentially be harmful and cause waste) in ordinate 9 items with various personalities of patients: 47.1% the patient was hypochondriac; 36.4% psychological; 27.3% were demanding. 35.5% believe that over-medicalization is observed in chronic degenerative diseases. The evidence of overdiagnosis: 42.2% dementia; 33.9% hypertensive heart disease; 32.2% greater depression. The causes of over-medicalization: 60.3% lack of GP integration and specialist; 58.7% defensive medicine; 55.4% request for pcs.

*Corresponding author: Colucci G, MedOnLine-Statte, Statte (TA), Italy, E-mail: drgcolucci@libero.it

Citation: Colucci G, Robusto F, Colucci E, Zamparella M, Montorsi S, et al. (2022) Quaternary Prevention and / or Hypermedicalization. Fragility (Disease) and / or Lobbying. J Gerontol Geriatr Med 8: 144.

Received: August 05, 2022; **Accepted:** August 18, 2022; **Published:** August 25, 2022

Copyright: © 2022 Colucci G, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Conclusion: From the observations of the colleagues it emerged that collaboration between the various health figures (GP and specialists) is opportune to better identify the DP.

Introduction

The scientific community has defined in the last fifty years the definition of prevention by differentiating it into three main categories in relation to the clinical status of the subjects on which to implement it as well as the objectives to be pursued, thus defining primary, secondary and tertiary prevention [1,2]. The WONCA (World Organization of Family Doctors) defined these 3 categories of prevention in the International Dictionary of General/Family Practice (2003) as: 1) Primary Prevention: correcting lifestyles and performing an early diagnosis; 2) Secondary Prevention: treating diseases and/or comorbidities; 3) Tertiary Prevention: rehabilitation and management of multimorbidities and polytherapy. Recently, however, we have witnessed an increasing interference of society and the media on health management and health promotion, encouraging periodic screening and follow-up campaigns.

This drive sometimes too vehemently, added to a defensive medicine that often leads to a hypermedicalization of health conditions not yet pathological, has brought out the concept of Quaternary prevention, initially proposed by Marc Jamouille, defined as a condition of malaise of the patient in the absence of a full-blown picture of actually defined disease (Figure 1). In fact, many patients may feel ill without having a well-defined disease and may be subject to an increased risk of being harmed by overtesting and hypermedicalization. In fact, patients and physicians tend to overestimate the benefits and underestimate the harms of preventive and curative interventions [3,4]. The concept of quaternary prevention should therefore always be present in the mind of the Doctor whenever he intervenes on the patient with / without disease in causing damage.

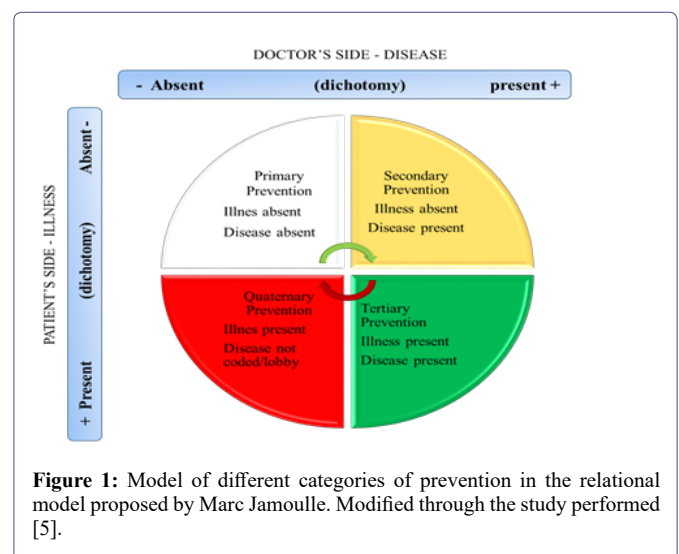


Figure 1: Model of different categories of prevention in the relational model proposed by Marc Jamouille. Modified through the study performed [5].

The Wonca defines quaternary prevention as the set of actions taken to identify the patient at risk of hypermedicalization, to protect him from new medical invasions and to suggest interventions, which are ethically acceptable. The questions that must therefore be asked concern the topicality of the definition of quaternary prevention and the dimensions of the phenomenon; the usefulness of its definition in protecting patients from medical harm; the inevitability of such a concept in good clinical practice. In this sense, in fact, the outpatient visits performed daily in the general medicine clinic are defined as difficult in 15-20% of cases. In most cases these difficulties arise from a bad doctor-patient relationship and these relationships can result, if not recognized and managed correctly, in diagnostic errors, unpleasant comparisons and annoying complaints or legal claims. There are no difficult patients but difficult relationships due to clinical characteristics of the patient, the doctor and/or societal influences. Objectives of the study: to evaluate the relationship of the Difficult Patient with Over Medicalization and how much it can influence clinical practice and Public Spending.

Materials and Methods

The working group of the Professional Training of General Medicine of the Puglia Region has developed an evaluation sheet (Figures 2 and 3) to define the difficult patient and the over medicalization. The card was administered to doctors in training during the three-year course for General Medicine, after they had attended the General Medicine (MG) clinic for 12 months. In the card it was asked to express a judgment about the possible overuse of health services, excessive medication causing damage to health, and the use of medical practices suited to the guidelines. This judgment was related to the different personalities of the patients, stratified in 9 different types: hypochondriac, non-cooperating, suffering from psychological disorders, resorting to non-medical channels of information, excessive recourse to the doctor, demanding, suspicious, cunning, and other. We also asked which were the diseases with the greatest impact on public spending, which diseases with over-diagnosis and what were the causes of over-medicalization.

Results

The questionnaire was submitted to 121 doctors (M 38 31.4%) attending the specific training course in general medicine during the three-year period (assisted population 180,000 total); 42 attended the first year of the course, 43 the second and 36 the third table 1. First, the difficult patient was characterized in relation to behavioral characteristics. Subsequently, we evaluated the methods of access and use of the drugs of the patients who attended our clinic, evaluating specifically: 1) an excessive and unwise use of health services; 2) excess of medicines causing harm to health; 3) use of validated medical practices, where the benefits are unclear, potentially harmful and cause waste. The results showed that the patients who use health services excessively were those who already went to the MMG with excessive frequency (51.2% of cases), followed by the hypochondriac with 38.8%. 2) non-cooperators in 28.9% of cases, those who had psychological disorders in 24.8% (Table 2).

Relationship between Over Medicalization - Quaternary Prevention and Patient Difficult					
Doctor Initials:	Sex: M F	Age:	1st year course	2nd year course	3rd year course
Difficult Patient					
DEFINITION OF THE PATIENT	Excessive and careless use of health services	Excessive medication causing harm to health	Use of validated medical practices, where the benefits are unclear, potentially harmful and cause waste	All the above	
Hypochondriac					
Not cooperating with your doctor					
Psychological disorder					
Use of non-medical, competent and specific information sources					
Excessive and/or unjustified recourse to the intervention of the doctor					
Exacting					
Suspicious					
Clever					
Other (not defined among those described)					
Over Medicalization - Quaternary Prevention					
Which of the following definitions of Quaternary Prevention seem most appropriate to you (multiple responses)?					
The QP is aimed at supporting the quality of life of the pc when tertiary prevention has not achieved its objectives. Example: so-called "Palliative" therapies, pain therapy.					
Action taken to identify pcs at risk of over-medicalization, to protect them from an aggressive medical approach and suggest interventions that are ethically acceptable.					
Fourth line of antineoplastic treatment aimed at preventing the recurrence of a highly aggressive tumor.					
Prevention aimed at supporting and involving doctors to be the best custodians of health resources.					
Over Medicalization and Pathologies					
Cancer					
Chronic degenerative diseases					
Acute diseases					
All the above					
None of the above					
I do not know					
In which of these pathologies is there evidence of Overdiagnosis (more responses)					
Obesity					
Cardiac insufficiency					
Sugar diabetes					
Hypertensive heart disease					
Atrial fibrillation					
Chronic ischemic heart disease					
Chronic kidney failure					
Chronic respiratory failure					
Senile dementia					
Major depression					
Parkinson's disease					
All the above					
None of the above					
I do not know					
What are the causes of Over Medication (more answers)					
Prescriptions not according to Guidelines (LG) or Diagnostic Therapeutic Assistance Pathways (PDTA)					
Lack of MMG and Specialist integration					
Economic reasons					
Industrial pressure reasons					
Professional interest reasons					
Socio-cultural reasons					
Media Pressure					
Compliance with pressing patient demands					
Defensive medicine					
Other					
All the above					
None of the above					
I do not know					

Figures 2 and 3: Questionnaire administered to doctors in the general medicine training course.

Course year	N°Number (percent)
First year	42 (34.7)
Second year	43 (35.5)
Third year	36 (29.7)

Table 1: Study participants per year of training.

Patient Definition	N°	Excessive and careless use of health services	Excess of medicines causes harm to health	Use of validated medical practices, where the benefits are unclear, potentially harmful and cause waste	All
Hypochondriac	118 (97.5)	47 (38.8)	16 (13.2)	7 (5.8)	57 (47.1)
Non-colaborative	116 (95.9)	27 (22.3)	35 (28.9)	39 (32.2)	25 (20.7)
Suffering from psychological disorders	109 (90.1)	23 (19.0)	30 (24.8)	18 (14.9)	44 (36.4)
Using non-medical information channels	116 (95.9)	15 (12.4)	19 (15.7)	62 (51.2)	29 (24.0)
Excessive appeal to medical services	116 (95.9)	62 (51.2)	26 (21.5)	10 (8.3)	30 (24.8)
Exacting	110 (90.9)	45 (37.2)	15 (12.4)	23 (19.0)	33 (27.3)
Suspicious	110 (90.9)	25 (20.7)	29 (24.0)	33 (27.3)	26 (21.5)
Clever	102 (84.3)	45 (37.2)	10 (8.3)	29 (24.0)	25 (20.7)
Other	23 (19.0)	0	2 (1.7)	2 (1.7)	21 (17.4)

Table 2: Difficult patient definition and clinical approach.

We asked if the over-medicalization was mainly due to acute, chronic degenerative and / or tumor pathologies with the following results: acute pathologies 17.4%; chronic/degenerative 35.5%; tumor 11.6%; all the previous 46.3%. Among the chronic pathologies those that were the cause of over-medicalization were in descending order of frequency: Senile dementia 42.2%; Hypertensive heart disease: 33.9%; Major depression 32.2% as can be seen from table 3 which lists the pathologies of those at greatest risk of frailty according to the “Charlson Comorbidity Index” [6,7].

Chronic diseases	N°Number (percent)
Obesity	12 (9.9)
Cardiac insufficiency	17 (14.1)
Sugar diabetes	20 (16.5)
Hypertensive heart disease	41 (33.9)
Atrial fibrillation	7 (5.8)
Cronic ischemic heart disease	10 (8.3)
Chronic kidney failure	21 (17.4)

Chronic respiratory failure	22 (18.2)
Senile dementia	51 (42.2)
Major depression	39 (32.2)
Parkinson's disease	1 (0.8)
All the above	11 (9.1)
None of the above	19 (15.7)
I do not know	8 (6.6)

Table 3: Over medicalization and pathologies.

To the question of what are the causes of over-medicalization of uncoded quaternary prevention / strong powers, they answered as follows: non-integration between health figures 60.3%; defensive medicine 58.7%; request for patients 55.4%; no LG or PDTA: 38.0%; mass average 36.4% (Table 4).

Diseases	N°Number (percent)
No Guidelines (GL) or Diagnostic Therapeutic Assistance Pathways (DTAP)	46 (38.0)
No integration	73 (60.3)
Economic reasons	40 (33.1)
Industrial pressure reasons	15 (12.4)
Professional interest reasons	15 (12.4)
Socio-cultural reasons	27 (22.3)
Media	44 (36.4)
Patient requests	67 (55.4)
Defensive medicine	71 (58.7)
Other	2 (1.7)
All the above	33 (37.3)
None of the above	0
I do not know	0

Table 4: Causes of over medication.

Discussion

In primary prevention it is mandatory to perform preventive interventions to have important benefits on mass health. But there are interventions that involve significant damage. For example, in the latest mass anti-COVID vaccination of particular interest are the events of myocarditis and pericarditis, particularly within 7 days of the second dose of the primary series, with a higher risk in adolescents and young adult males. Data available from short-term follow-up suggest that most individuals have had resolution of symptoms, although no information is yet available on potential sequelae in the long run [8]. In addition, very often hematochemical tests (such as tumor biomarkers) are performed in primary prevention, an error also from a clinical point of view. Of course, in undergoing such tests there are certainly false positives and this leads to an increase in unjustified expenditure for unnecessary investigations. Even in cardiovascular diseases (Obesity, Arterial Hypertension, Diabetes Mellitus) reducing the cut off index transforms a cohort of people at risk into patients with full-blown pathology. This involves growth of comorbidities, polypharma therapy, exposure to adverse effects, interaction with other drugs, liver and kidney damage [9].

The consequence of such attitudes leads to medical care which is too interventional and to a greater risk of adverse events, this is

quaternary prevention. Often the guidelines, especially in General Medicine, are based on trials with a small number of enrolled subjects, or in different contexts for geolocation, social and anthropological culture. Medical science of the territory we has the greatest potential database that provides real life data, therefore able to formulate guidelines and Diagnostic Therapeutic Assistance Pathways (PTA) in collaboration with Hospitalists and Universities.

The mass media have a considerable influence on our profession, starting with the economy, on the one hand the industries that incentivize the prescription of expensive drugs, on the other the administration that pushes for non-prescription, both for the resistance of antibiotic therapy and for the prescription of off-label drugs. Finally, defensive medicine - all those actions that a doctor decides to implement with the aim of defending and protecting himself from any harmful damage to the patient that could result from medical negligence. Defensive medicine can be positive (commissive) or negative, also called omissive. All this is quaternary prevention. In today's society, gender identity undergoes throughout its life, divided into decades, pathologies that are first of an acute nature (in childhood) and then turn into chronic (cardiovascular risk) and neoplasms, genomic diseases that over time become self-limiting, finally terminal.

As we have shown, the prevention of overdiagnosis or the prevention of excessive treatment is amenace of our society. Therefore, every patient can be in each of these quadrants [10-12]. The new WONCA review on Quaternary Prevention is: "Action taken to protect people (people/people/patients) from interventions that could cause more than benefit." Wagner H states "The concept of quaternary prevention is nothing more than the systematization of the concept of "first do no harm" in our clinical practice; clinical care must be ensured and those who practice excessive medicine must be protected" [13]. The last point to be addressed is digitalization. It is the conversion process that, applied to the measurement of a physical phenomenon, determines its transition from the field of continuous values to that of discrete values. This process is now commonly synthesized in terms of the transition from analog to digital in audio, video, images and text. This means the end of the doctor-patient relationship and the practical clinic. Society is not ready for the abrupt transition, but the process must be slow and over time.

Conclusion

Quaternary prevention has many limitations. It takes a lot of studies to improve our ordinary work. We present (Table 5) a decalogue to improve the Health System.

Pro	Contro
Implement in the last years of University the practical internship at the MdF	Low participation and interest in General Medicine
The Order of Doctors supreme body to re-establish the Deontological Code	Conflict between Specialists
In the communication > Enoxpatia	Empathy only
Excellent practical clinic for diagnosis and therapy	Reduce Health Spending
Clinic dedicated to chronic diseases (with the different health figures)	Reduce health spending
Do not perform high-cost instrumental investigations	Defensive medicine

A new and different culture of difficult patient management	Examine with other colleagues the various types of difficult patients and possible therapy
Coordinate the execution of examinations and therapies in comorbidities	Lack of integration between specialist figures
Adoption of standardized protocols	Compliance with pressing patient demands
Telemedicine Yes	Telemedicine No

Table 5: How to improve General Medicine?

References

- World Health Organization (WHO) WHO traditional medicine. In: Chinitz DP, Rodwin VG (eds.). On Health Policy and Management (HPAM): Mind the theory-policy-practice gap. Int J Health Policy Manag 3: 3613.
- Harrison C, Britt H, Miller G, Henderson J (2013) Prevalence of chronic conditions in Australia. PLoS One 8: 67494.
- Lykkegaard J, Larsen PV, Paulsen MS, Søndergaard J (2014) General practitioners' home visit tendency and readmission-free survival after COPD hospitalisation: A Danish nationwide cohort study. NPJ Prim Care Respir Med 24: 14100.
- Laux G, Kuehlein T, Rosemann T, Szecsenyi J (2008) Co- and multimorbidity patterns in primary care based on episodes of care: Results from the German CONTENT project. BMC Health Serv Res 8: 14.
- Soler JK, Okkes I, Wood M, Lamberts H (2008) The coming of age of ICPC: celebrating the 21st birthday of the International Classification of Primary Care. Fam Pract 25: 312-317.
- Robusto F, Colucci E, Dell'Aquila L, Colucci V, D'Ettore A, et al. (2015) Il ruolo della Medicina Generale nel management della depressione minore e delle comorbidità negli anziani: Sviluppo di una checklist di sintomi per la diagnosi differenziale. Minerva Psichiatrica 56: 61-69.
- Robusto F, Lepore V, D'Ettore A, Lucisano G, De Berardis G, et al. (2016) The drug derived complexity index (DDCI) predicts mortality, unplanned hospitalization and hospital readmissions at the population level. PLoS One 11: 0149203.
- FDA (2022) Cardio2022 Vac2022 Med2022 Farma2022. FDA, Maryland, USA.
- Bentzen N (2003) Wonca Dictionary of General/Family Practice. PH3C, Copenhagen, Denmark.
- Tomljenovic L, Shaw CA (2013) Human papillomavirus (HPV) vaccine policy and evidence-based medicine: are they at odds? Ann Med 45: 182-193.
- Wolinsky H (2005) Disease mongering and drug marketing. Does the pharmaceutical industry manufacture diseases as well as drugs? EMBO Rep 6: 612-614.
- Mariño MA (2015) Incidentomas: Conceito, relevância e desafios para a prática médica. Revista brasileira de medicina de família e comunidade 35.
- Kuehlein T, Sghedoni D, Visentin G, Gervas J, Jamoulle M (2010) Quaternary prevention: A task of the general practitioner. Prim Care.



- Advances In Industrial Biotechnology | ISSN: 2639-5665
- Advances In Microbiology Research | ISSN: 2689-694X
- Archives Of Surgery And Surgical Education | ISSN: 2689-3126
- Archives Of Urology
- Archives Of Zoological Studies | ISSN: 2640-7779
- Current Trends Medical And Biological Engineering
- International Journal Of Case Reports And Therapeutic Studies | ISSN: 2689-310X
- Journal Of Addiction & Addictive Disorders | ISSN: 2578-7276
- Journal Of Agronomy & Agricultural Science | ISSN: 2689-8292
- Journal Of AIDS Clinical Research & STDs | ISSN: 2572-7370
- Journal Of Alcoholism Drug Abuse & Substance Dependence | ISSN: 2572-9594
- Journal Of Allergy Disorders & Therapy | ISSN: 2470-749X
- Journal Of Alternative Complementary & Integrative Medicine | ISSN: 2470-7562
- Journal Of Alzheimers & Neurodegenerative Diseases | ISSN: 2572-9608
- Journal Of Anesthesia & Clinical Care | ISSN: 2378-8879
- Journal Of Angiology & Vascular Surgery | ISSN: 2572-7397
- Journal Of Animal Research & Veterinary Science | ISSN: 2639-3751
- Journal Of Aquaculture & Fisheries | ISSN: 2576-5523
- Journal Of Atmospheric & Earth Sciences | ISSN: 2689-8780
- Journal Of Biotech Research & Biochemistry
- Journal Of Brain & Neuroscience Research
- Journal Of Cancer Biology & Treatment | ISSN: 2470-7546
- Journal Of Cardiology Study & Research | ISSN: 2640-768X
- Journal Of Cell Biology & Cell Metabolism | ISSN: 2381-1943
- Journal Of Clinical Dermatology & Therapy | ISSN: 2378-8771
- Journal Of Clinical Immunology & Immunotherapy | ISSN: 2378-8844
- Journal Of Clinical Studies & Medical Case Reports | ISSN: 2378-8801
- Journal Of Community Medicine & Public Health Care | ISSN: 2381-1978
- Journal Of Cytology & Tissue Biology | ISSN: 2378-9107
- Journal Of Dairy Research & Technology | ISSN: 2688-9315
- Journal Of Dentistry Oral Health & Cosmesis | ISSN: 2473-6783
- Journal Of Diabetes & Metabolic Disorders | ISSN: 2381-201X
- Journal Of Emergency Medicine Trauma & Surgical Care | ISSN: 2378-8798
- Journal Of Environmental Science Current Research | ISSN: 2643-5020
- Journal Of Food Science & Nutrition | ISSN: 2470-1076
- Journal Of Forensic Legal & Investigative Sciences | ISSN: 2473-733X
- Journal Of Gastroenterology & Hepatology Research | ISSN: 2574-2566
- Journal Of Genetics & Genomic Sciences | ISSN: 2574-2485
- Journal Of Gerontology & Geriatric Medicine | ISSN: 2381-8662
- Journal Of Hematology Blood Transfusion & Disorders | ISSN: 2572-2999
- Journal Of Hospice & Palliative Medical Care
- Journal Of Human Endocrinology | ISSN: 2572-9640
- Journal Of Infectious & Non Infectious Diseases | ISSN: 2381-8654
- Journal Of Internal Medicine & Primary Healthcare | ISSN: 2574-2493
- Journal Of Light & Laser Current Trends
- Journal Of Medicine Study & Research | ISSN: 2639-5657
- Journal Of Modern Chemical Sciences
- Journal Of Nanotechnology Nanomedicine & Nanobiotechnology | ISSN: 2381-2044
- Journal Of Neonatology & Clinical Pediatrics | ISSN: 2378-878X
- Journal Of Nephrology & Renal Therapy | ISSN: 2473-7313
- Journal Of Non Invasive Vascular Investigation | ISSN: 2572-7400
- Journal Of Nuclear Medicine Radiology & Radiation Therapy | ISSN: 2572-7419
- Journal Of Obesity & Weight Loss | ISSN: 2473-7372
- Journal Of Ophthalmology & Clinical Research | ISSN: 2378-8887
- Journal Of Orthopedic Research & Physiotherapy | ISSN: 2381-2052
- Journal Of Otolaryngology Head & Neck Surgery | ISSN: 2573-010X
- Journal Of Pathology Clinical & Medical Research
- Journal Of Pharmacology Pharmaceutics & Pharmacovigilance | ISSN: 2639-5649
- Journal Of Physical Medicine Rehabilitation & Disabilities | ISSN: 2381-8670
- Journal Of Plant Science Current Research | ISSN: 2639-3743
- Journal Of Practical & Professional Nursing | ISSN: 2639-5681
- Journal Of Protein Research & Bioinformatics
- Journal Of Psychiatry Depression & Anxiety | ISSN: 2573-0150
- Journal Of Pulmonary Medicine & Respiratory Research | ISSN: 2573-0177
- Journal Of Reproductive Medicine Gynaecology & Obstetrics | ISSN: 2574-2574
- Journal Of Stem Cells Research Development & Therapy | ISSN: 2381-2060
- Journal Of Surgery Current Trends & Innovations | ISSN: 2578-7284
- Journal Of Toxicology Current Research | ISSN: 2639-3735
- Journal Of Translational Science And Research
- Journal Of Vaccines Research & Vaccination | ISSN: 2573-0193
- Journal Of Virology & Antivirals
- Sports Medicine And Injury Care Journal | ISSN: 2689-8829
- Trends In Anatomy & Physiology | ISSN: 2640-7752

Submit Your Manuscript: <https://www.heraldopenaccess.us/submit-manuscript>