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55 years of the Infectious Diseases Service of Hospital de São João in Oporto – A Historical Perspective

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55 years of the Infectious Diseases Service of Hospital de São João in OPorto - A Historical Perspective

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É AUTORIZADA A REPRODUÇÃO INTEGRAL DESTE TRABALHO APENAS PARA EFEITOS DE INVESTIGAÇÃO, MEDIANTE DECLARAÇÃO ESCRITA DO INTERESSADO, QUE A TAL SE COMPROMETE.	☒
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DE ACORDO COM A LEGISLAÇÃO EM VIGOR, (INDICAR, CASO TAL SEJA NECESSÁRIO, Nº MÁXIMO DE PÁGINAS, ILUSTRAÇÕES, GRÁFICOS, ETC.) NÃO É PERMITIDA A REPRODUÇÃO DE QUALQUER PARTE DESTE TRABALHO.	☐

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55 YEARS OF THE INFECTIOUS DISEASES SERVICE OF HOSPITAL DE SÃO JOÃO IN OPORTO – A HISTORICAL PERSPECTIVE

Abstract

In October 2019 was celebrated the 55th anniversary of the Infectious Diseases Service of Hospital de São João, in Oporto, Portugal. Over the years, the scientific and technological advances namely, the introduction of the National Vaccination Plan, therapeutic optimization, infrastructures and equipment improvements and healthcare professionals more qualified, were crucial to overcome the challenges faced by this Service. The purpose of this dissertation is to describe with the utmost rigor, allowed by the memory of the physicians and the existing records, the path and evolution of the Infectious Diseases Service of Hospital de São João over these 55 years, considering the major challenges, the most important milestones and the Service´s most outstanding personalities.

Key words*:* Infectious Diseases History, Infectious Diseases Service, Hospital de São João, Faculty of Medicine of the University of Porto

Introduction

"This building for the Faculty of Medicine and Hospital de São João was solemnly inaugurated by the President of the Republic, Américo de Deus Rodrigues Tomás, on 24 June 1959, in the XXXII year of the Government of Doctor Oliveira Salazar"[I], a scripture perpetuated on a tombstone since the time of the opening ceremony of Hospital de São João in Oporto. However, it was only on 4 July 1959, when Auxiliary Bishop of Oporto Diocese, D. Florentino de Andrade e Silva (1915-1989), blessed the building that the inauguration ceremony truly ended (CAHSJ, 2009, p.59).

Hospital de São João, besides the healthcare purposes, was designed as a teaching and researching place, together with the Faculty of Medicine of the University of Porto (CAHSJ, 2009).

In the first years of the Hospital, several difficulties arose, as the absence of an Urgency Service and other Medical Services that until the beginning of 1962 remained unopened, such as the Pneumology, Psychiatry, Otorhinolaryngology and Infectious Diseases Services. Then, on 30 October 1964, together with the Urgency Service, the last missing service of the Hospital – the Infectious Diseases Service – were finally opened (CAHSJ, 2009). In fact, this event was reported on 1 November 1964, by the Portuguese periodical newspaper "Diário de Notícias" (Fig.1).

The Infectious Diseases Service, which initially had three floors (currently it only has two) in the West wing of Hospital de São João, began with Inpatient Unit and Urgency Unit. Professor Fonseca e Castro (1898-1984) was in charge of the Service and invited Professor Henrique Lecour (1930-2019) to organize it (CAHSJ, 2009).

Materials and Methods

The bibliographic research was carried out using the available books about the History of Portuguese Medicine stored in the library of the Faculty of Medicine of the

[I] «Este edifício destinado à Faculdade de Medicina e ao Hospital de S. João foi solenemente inaugurado pelo presidente da República, contra-almirante Américo de Deus Rodrigues Tomás, em 24 de Junho de 1959, no XXXII ano do Governo do Doutor Oliveira Salazar» (CAHSJ, 2009, p.59).

University of Porto and examining Portuguese periodical newspapers between 1964 and 1976, archived in Oporto Municipal Library.

The research included "curricula vitae", PhD theses and papers published by physicians who worked or who continue to work in the Infectious Diseases Service of Hospital de São João and in Faculty of Medicine of the University of Porto. In addition, the information was accomplished with personal testimonies, through interviews of several physicians who have been part of the history of the Service, namely, Dr. Alberto Seara (1929-), Dr. Alves Pereira (1943-), Professor Henrique Lecour (1930-2019) and Professor António Sarmento (1955-).

Directors of the Infectious Diseases Service of Hospital de São João

Francisco Manuel da FONSECA E CASTRO - Director 1964-1968

Professor Francisco Manuel da Fonseca e Castro (1898-1984) (Fig.2) was born on 21 July 1898, in Oporto. He completed his medical degree at the Faculty of Medicine of the University of Porto, in 1922 (Fonseca-Castro, 1956).

Professor Fonseca e Castro was a pediatrician and the first Director of the Pediatrics Service of the Hospital de São João, from 1959 to 1968. He was a prestigious professor with recognized knowledge in the organization of pediatric services (Ricon-Ferraz, Guimarães, Caldas-Afonso, 2013).

Apart from the pediatric activity, Professor Fonseca e Castro paid particular attention to the public health, supporting the medical-sanitary improvement and performing theoretical lessons and practical orientations that were implemented in several pediatric services such as the Hospital de Santo António and Hospital Maria Pia, both in Oporto, Portugal (Ricon-Ferraz, Guimarães, Caldas-Afonso, 2013). Moreover, in regards to Infectious Diseases, he published numerous papers such as "Anti-difteric prophylaxis"[II], "Pneumonia simulating typhoid fever"[III], "Some cases of kala-azar along Douro´s river"[IV], "Early manifestations of congenital syphilis"[V] and "Cases of tuberculous meningitis treated by Estroptomycin"[VI] (Fonseca-Castro, 1956).

[II] «A profilaxia antidiftérica», Actas do III Congresso Nacional de Medicina, 1928

[III] «Pneumonia simulando febre tifóide», Portugal Médico, XIV, nº6, 1930

[IV] «Alguns casos de Kala-azar nas margens do Douro», Portugal Médico, XV, nº6 1931

[V] «As manifestações precoces da sífilis congénita», Portugal Médico, XIX, nº10, 1935

[VI] «Casos de Meningite tuberculosa tratadas pela Estreptomicina», Portugal Médico, XXXIII, nº4, 1949

Professor Fonseca e Castro's wide experience and knowledge on childhood Infectious Diseases and his dedication to the promotion of public health were crucial to became Director of Infectious Diseases Service, in 1964 (Ricon-Ferraz, Guimarães, Caldas-Afonso, 2013).

João de Sousa Guedes PEREIRA LEITE - Director 1968-1971

Professor João de Sousa Guedes Pereira Leite (1919-1974), was born on 24 October 1919, in Oporto. Professor Pereira Leite graduated in Medicine at the Faculty of Medicine of the University of Porto, on 28 July 1942 (Pereira-Leite, 1970).

From early on, he devoted his time to education and research. In 1950, he was invited to lecture electrocardiogram classes and later he showed interest in Operative Medicine where, besides having participated in several clinical activities, he collaborated in several scientific investigations (Pereira-Leite, 1970).

In 1955, Professor Pereira Leite attended the cardiovascular pathology course at Paris Medical Faculty. Two years later, he presented his PhD exam with the dissertation on "Congestive Heart Failure – Contribution to the study of neurovascular factor in its pathophysiology"[VII] (Pereira-Leite, 1970).

In 1968, he became responsible for the chair of Infectious Diseases course at the Faculty of Medicine of the University of Porto and, later, on 30 December 1968 took office as Director of the Infectious Diseases Service (Pereira-Leite, 1970).

Fernando de Carvalho CERQUEIRA MAGRO Gomes Ferreira - Director 1971-1985

Professor Fernando de Carvalho Cerqueira Magro Gomes Ferreira (1920-2014) (Fig.3) was a Jubilated Professor at the Faculty of Medicine of the University of Porto, a specialist in Internal Medicine, who was in charge of the Infectious Diseases Service between 1971 and 1985 (Cerqueira-Magro, 1977). In 1978, he became the Director of the former Medicine-1 Service until 1992 (Frada, Lecour-Menezes, 1992).

Concerning education and research activity, Professor Cerqueira Magro was responsible for the chair of Infectious Diseases of Faculty of Medicine of the University of Porto in 1971. He had a very important contribution on supporting the development of clinical research in Infectious-related Diseases, especially at a time when it was

[VII] «Insuficiência cardíaca congestiva – Contribuição ao estudo do factor neurovascular na sua fisiopatologia», Tese de Doutoramento, 1957

thought that the introduction of new antimicrobial drugs could dictate the end of the infectious diseases (Frada, Lecour-Menezes, 1992). As a researcher, he made a significant contribution to the Infectious Diseases with several published papers such as "Meningitis. Classification and lethality"[VIII] and "Tuberculous meningitis. Liquor chemistry and cytology"[IX](Cerqueira-Magro, 1977).

The cholera outbreak in 1974-75 tested his management expertise when an enormous affluence of people became sick and consequently overloaded the Service. In addition, the human and material resources available were inadequate for the chaotic situation lived during this outbreak. Even so, Professor Cerqueira Magro´s management and the commendable effort from the healthcare professionals of the Infectious Diseases Service were fundamental to respond successfully to the cholera outbreak. After this outbreak, Professor Cerqueira Magro fought vigorously to improve the Service conditions, which were gradually improved (Cerqueira-Magro, 1977).

Nephrology was another passion that Professor Cerqueira Magro owned. He became a pioneer in Portugal of the renal biopsy and consequently he was the main driver of the establishment of the Nephrology Service in 1994. "The several renal biopsies in the most diverse situations of renal pathology allowed Professor Cerqueira Magro to be one of the greatest experts in Europe, and his exhaustive study of both clinic and pathology (…) allowed him to deliver a work of great scientific category that was his doctoral dissertation", wrote his friend, Professor at the Faculty of Medicine of the University of Porto and prestigious Portuguese physician Daniel Serrão (1928-2017) in his tribute book (Frada, Lecour-Menezes, 1992. p.18). His research, with 413 renal biopsies, served as basis for his doctorate´s thesis "Our experience with renal biopsy"[X] defended in 1966 (Cerqueira-Magro, 1977).

The work of Professor Cerqueira Magro was also linked to the introduction of geriatrics in Faculty of Medicine of the University of Porto and in Hospital de São João by recognizing that the increase of life expectancy was generating a promising field of action for physicians (Frada, Lecour-Menezes, 1992).

[VIII] «Meningites. Classificação e Letalidade», O Médico LXV: 543, 1972.

[IX] «Meningite Tuberculosa. Quimismo e Citologia do Liquor», O Médico LXVIII: 55, 1973.

[X] «A nossa experiência em biópsia renal», Tese de Doutoramento, 1966.

Henrique José Ferreira Gonçalves LECOUR Menezes – Director 1985-2000

Professor Henrique José Ferreira Gonçalves Lecour Menezes (1930-2019) (Fig.4), born in Oporto on 1 December 1930, was a Jubilated Professor at the Faculty of Medicine of the University of Porto, expert in Internal Medicine, Infectious Diseases and Occupational Medicine. Professor Lecour began his medical degree at this Faculty in 1948 and concluded in 1955 (Silvestre, Sarmento, 2002).

Professor Lecour was a dedicated and talented student that, two years after his graduation, was invited to start lecturing Infectious Diseases classes, a task that he carried on for a period of 7 years shared with his clinical duties. Professor Lecour´s leadership, teaching and organizational skills lead to the invitation from Professor Fonseca e Castro to organize the Infectious Diseases Service of Hospital de São João, in 1964. From then on, his career was linked to education, research and clinical activities in this Service (Silvestre, Sarmento, 2002).

In 1978, Professor Lecour assumed the internal management of the Service after the transfer of Professor Cerqueira Magro to Medical Clinic Service. In 1983, Professor Lecour completed his PhD in Medicine at the Faculty of Medicine of the University of Porto with the thesis "Viral Hepatitis: epidemiology and Diagnosis"[XI] and the complementary exam about "Botulism"[XII]. Two years later, Professor Lecour definitively assumed the Service´s Management (Silvestre, Sarmento, 2002).

As Director, Professor Lecour was essential to the evolution of the Service, working hard to build a competent, autonomous, organized and scientific Service but above all concerned with the patients. In fact, Professor Lecour´s patients care was remarkable, as Professor António Sarmento, current Director of Infectious Diseases Service of Hospital de São João, wrote "Professor Lecour managed to use the sanitary facilities of patients and not the reserved for the staff" and thus ensured that hygiene conditions for the patients remained appropriate (Silvestre, Sarmento, 2002, p.17). In addition, "Professor Lecour used to taste the food that was to be served to the patients" to guarantee the quality and their proper nutrition (Silvestre, Sarmento, 2002, p.17).

Over the years, Professor Lecour´s dedication to this Service was commendable, defending since the beginning that the name of the Service should be called Infectious Diseases and not Infection and Contagious Diseases (as it was called in the early years) (Silvestre, Sarmento, 2002). Professor Lecour confessed in an interview that this last

[XI] «Hepatite vírica: epidemiologia e diagnóstico», *Tese de Doutoramento, 1983.*

[XII] «Botulismo», *Prova Complementar, 1983.*

term has a negative connotation leading to a labelling of the patients that was not beneficial for all.

In 1980, Professor Lecour created the Outpatient Consultation and eight years later he was responsible for the organization of the Ambulatory Care for immunosuppressed-HIV patients, the first in Portugal, whose official inauguration was on 28 November 1994 (Silvestre, Sarmento, 2002). This Ambulatory Care consists of two medical offices, a nursing office, a nursing workroom, two adequately equipped treatment rooms and a meeting room (Mota-Miranda, 2002).

In 1988, a huge step was taken in the Service with the creation of the Infectious Diseases Intensive Care Unit (Silvestre, Sarmento, 2002).

Over the years, Professor Lecour defended the creation of the medical specialty of infectious diseases, which was only recognized in 1987 (Silvestre, Sarmento, 2002).

In his last year as Director, in 2000, a completely revamped Infectious Disease Service was inaugurated, with logistics that met the challenges of the times, including nine negative-pressure isolation rooms and a state of the art six beds Intensive Care Unit with infrastructures that would later be qualified as polyvalent and fully autonomous (Silvestre, Sarmento, 2002).

Even after his clinical retirement, Professor Lecour maintained his research activity with several papers published, participated in numerous lectures and performed an important role in promoting public health (Silvestre, Sarmento, 2002).

António Augusto Alves da MOTA MIRANDA – Director 2001-2007

Professor António Augusto Alves da Mota Miranda (1946-) (Fig.5), an expert in Infectious Diseases, was born in Oporto on 31 January 1946. He graduated in 1972 as a medical doctor from the Faculty of Medicine of the University of Porto (Mota-Miranda, 2002).

Professor Mota Miranda´s specialization is related to the area of infectious pathology associated with immunosuppression situations, particularly the transplanted patients or the ones with HIV infections. This differentiation is justified by the evolution of solid organs transplantation at national level and, especially, at Hospital de São João and by the appearance of the first cases of HIV in Portugal (Mota-Miranda, 2002).

In March 1986, under the management of Professor Lecour, Professor Mota Miranda was responsible for monitoring patients with HIV infection, organizing the

consultation for immunosuppressed patients and the Ambulatory Care for HIV patients. In 1992, he was responsible for coordinating Inpatient Care, the Ambulatory Care and Consultations for HIV patients (Mota-Miranda, 2002).

In 1999, Professor Mota Miranda presented his doctoral exam with the thesis "Human immunodeficiency virus infection. Study of epidemiological and clinical aspects"[XIII] and in 2001, he was appointed as Director of the Infectious Diseases Service of Hospital de São João (Mota-Miranda, 2002).

Concerning his teaching activity, in 1978, he started teaching as monitor of the clinical chair of Infectious Diseases at the Faculty of Medicine of the University of Porto, an annual course which syllabus was based on common infectious pathologies from that time, mainly related to the poor hygienic-sanitary level and inefficient vaccination coverage in Portuguese territory. From the academic year of 1983, the chair of Infectious Diseases started to be governed by Professor Lecour, and under his guidance, Professor Mota Miranda continued to exercise these functions, maintaining the same teaching methodology (Mota-Miranda, 2002).

In December 2000, he became responsible for conducting the subject of Clinical Infectious Diseases at the Faculty of Medicine of the University of Porto. At that time with the relevant change in the spectrum of infectious diseases as HIV, soft tissues infections, acute and chronic viral hepatitis and bacterial pneumonia becoming more common, arose the need of knowledge updating. Professor Mota Miranda recognized this need and developed the course in order to provide students with a reviewed content of Infectious Diseases. Thereby, he highlighted the predominant pathologies in the community and in the hospital environment without neglecting endangered infectious diseases in developed countries, but still important in underdeveloped regions. Professor Mota Miranda also incorporated infectious pathology in immunodepressed patients, whose infections resulted in the reactivation of endogenous microorganisms, usually causing benign and limited diseases and, many times, without clinical translation in the immunocompetent patient (Mota-Miranda, 2002).

Professor Mota Miranda described some of his work through published papers such as "Central nervous system infection in immunocompromised patients"[XIV],

[XIII] «Infecção pelo Vírus da Imunodeficiência Humana: aspectos epidemiológicos e clínicos», Tese de Doutoramente, 1999.

[XIV] «Infecção do sistema nervoso central em doentes imunodeprimidos», O Médico, 1984.

"Cryptococcosis in AIDS patients"[XV] and "HIV-2 Infection with a Long Asymptomatic Period – A Case Report"[XVI] (Mota-Miranda, 2002).

António Carlos Megre Eugénio SARMENTO – Current Director (2007-present)

Professor António Carlos Megre Eugénio Sarmento (1955-) (Fig.6), current Director of The Infectious Diseases Service since 2007, was born on 28 August 1955 in Oporto. Professor Sarmento graduated in Medicine at the Faculty of Medicine of the University of Porto in 1978 (Sarmento, 1992).

After graduated, Professor Sarmento initiated his teaching and research career, mainly in the area of pharmacology as professor of General Therapy and Pharmacology. He published several papers in the field of pharmacology such as "Effects of denervation induced by 6-hydroxydopamine on cell-nucleus activity of arterial and cardiac-cells of the dog"[XVII] and "Effects of sympathetic denervation on liver fibroblasts – prevention by adenosine"[XVIII]. In 1988, Professor Sarmento became a specialist in Clinical Pharmacology (Sarmento, 1992).

In 1985, he started the Infectious Diseases internship at the Infectious Diseases Service of Hospital de São João, under Professor Lecour´s management and five years later, he became a specialist in Infectious Diseases. Concerning his research activity in Infectious Diseases, Professor Sarmento also published several papers such as "Ofloxacin in the treatment of boutonneuse fever. A preliminary report."[XIX] and "Midazolam in the treatment of tetanus. A study of 50 cases."[XX] (Sarmento, 1992).

In 1988, since the inauguration of the Infectious Diseases Intensive Care Unit, Professor Sarmento dedicated his clinical activity to the Intensive Care (Sarmento, 1992). In 1996, he became a specialist in Intensive Care Medicine (Portugal, 2015, p.15402-15403). "Some criteria for the choice of the empirical antibiotic treatment of pneumonia in intensive care"[XXI] and "Activities at an Infectious Disease Intensive Care

[XV] «Criptococose em doentes com SIDA», Arquivos de Medicina, 1993.

[XVI] «HIV-2 Infection with a Long Asymptomatic Period – A Case Report», Journal of Infection, 1995.

[XVII] "Effects of denervation induced by 6-hydroxydopamine on cell-nucleus activity of arterial and cardiac-cells of the dog". NAUNYN-SCHMIEDEBERGS ARCHIVES OF PHARMACOLOGY. 1981.

[XVIII] Effects of sympathetic denervation on liver fibroblasts – prevention by adenosine". JOURNAL OF AUTONOMIC PHARMACOLOGY. 1990.

[XIX] "Ofloxacin in the treatment of boutonneuse fever. A preliminary report." Journal of chemotherapy. 1989.

[XX] "Midazolam in the treatment of tetanus. A study of 50 cases." Revista Espanola de Quimioterapia. 1991.

[XXI] "Some criteria for the choice of the empirical antibiotic treatment of pneumonia in intensive care". Acta Médica Portuguesa. 1999.

unit (1988-1997)"[XXII] are examples of papers published by Professor António Sarmento in the Intensive Care area (Sarmento, 2013).

Professor Sarmento´s PhD thesis defense occurred in 1992 entitled "Modulation of blood-brain barrier permeability by central adrenergic mechanisms"[XXIII] (Sarmento, 1992).

Since then, Professor Sarmento´s career is been dedicated to teaching, research and clinical activity. In 2007, he was nominated Director of the Infectious Diseases Service and became responsible for conducting the university chair of Clinical Infectious Diseases at the Faculty of Medicine of the University of Porto. Regarding his researcher activity, he is the author of more than 202 published papers in several national and international scientific papers (Portugal, 2015, p.15402-15403).

Over the years, Professor Sarmento held several leading position such as President of the Oporto District Council of the Portuguese Medical Association and Council President for Military Health receiving, in 2015, a public praise by the Minister of National Defence, José Pedro Aguiar-Branco (1957-), for the "remarkable and extraordinarily expertise in which Professor António Sarmento collaborated in the reform of the Military Health System" (Portugal, 2015, p.15402-15403).

Memories perpetuated in published papers

Over these 55 years, the challenges of the Infectious Diseases Service have accompanied scientific and technological advances and public health measures implemented in Portugal.

The spectrum of pathologies that appeared in the early days of the Service is quite different from the pathologies from nowadays. In the early years, it was easily seen patients with diphtheria, polio, tetanus and botulism; however, with the improvement of National Vaccination Plan, including more vaccines and covering a larger part of Portuguese population, the frequency of these conditions decreased, being restricted to the older and more isolated population.

[XXII] "Activities at an Infectious Disease Intensive Care unit (1988-1997)". Acta Médica Portuguesa. 1999.

[XXIII] "Modulação da permeabilidade da barreira hematoencefálica por mecanismos adrenérgicos centrais". Tese de Doutoramento. 1992.

Chaotic cholera outbreak, 1974-1975

Between 1974 and 1975, a Cholera outbreak triggered in Portugal, reaching mainly the northern region, and with Oporto being the hardest hit district (Fig.7), the Infectious Diseases Service, under the management of Professor Cerqueira Magro, was truly under test. The literature reveals that the cases from Oporto were almost the double when comparing to Lisbon, tackling a population, which at that time was about three hundred thousand lower. The epidemic peak was seen in the second half of August 1974 and only started to decrease significantly from September, being almost residual in the following months. In October 1974, according to the Portuguese periodical newspaper, "Jornal de Notícias", Oporto counted 1023 cases of cholera. In 1975, some cases were still mentioned, but not as relevant as the year before (Maltez, Almeida, Roseira, 2014).

"Jornal de Notícias" described how Cholera outbreak was being handled at the Service (Fig.8-9) with reports as "even an healthy individual gets sick when observes the conditions that the patients are subjected to in the Hospital de São João; beds in the corridors; two patients sharing one bed; naked children (for lack of clothes from the hospital itself)" (Cólera…, 6 ago. 1974, p.7). "Jornal de Notícias" reported the seriousness of the outbreak and the difficulties faced by health professionals in providing the best care for hospitalized patients (Cólera…, 6 ago. 1974).

The newspapers had the necessary effect on the hospital administration, with a prompt reaction by providing beds from other services to the Infectious Diseases Service and thus, managing to respond to the high number of cholera patients, information confirmed by Dr. Alberto Seara (1929-), a physician who lived this outbreak closely.

During this outbreak, several health education campaigns were launched via television, newspapers and radio, targeted to the population, with clear instructions on hygiene measures. These awareness campaigns also included Hospital de São João and the Infectious Diseases Service that created a pamphlet entitled "Cholera. Measures to be taken under current circumstances" that has been distributed to patients and to the general population (Maltez, Almeida, Roseira, 2014).

At the end of the outbreak, approximately 2300 patients were treated by the Infectious Diseases Service of Hospital de São João, with a mortality rate not exceeding 0,5%. These results were recognized by the Hospital´s Administration that awarded the Service with a public praise (Cerqueira-Magro, 1977).

Tetanus and the importance of the National Vaccination Plan

Tetanus was a pathology that stood out in the early days of the Infectious Diseases Service and as such, in 1977 Professor Henrique Lecour presented the paper about "Tetanus – Epidemiology and Clinic". This paper provides the case series, between 1964 and 1977, of the Infectious Diseases Service of Hospital de São João.

According to the data presented by Professor Lecour, in the analysis of these 13 years, 424 patients were hospitalized with tetanus, of which 193 were newborns and the remaining were adults or children. In 1964, it was reported 383 cases and in 1977 around 100 cases, with an incidence decrease from 4,4 to 1,15, respectively. This decrease was the result of the tetanus vaccine introduction in the National Vaccination Plan in 1965 and the improvement of childbirth care conditions. The effect of the immunization of the young was seen by the significant decrease of tetanus cases until the age of 20 and the largest share of cases from 40 years of age, as mentioned by Professor Lecour (Maltez, Almeida, Roseira, 2014).

Furthermore, it is also noteworthy the reference to the slight increase in cases in females and in the months of May and October due to the rural activity in these months. Fig. 10 presents the case series between 1964 and 1976 at the Infectious Diseases Service of Hospital de São João (Maltez, Almeida, Roseira, 2014).

Botulism outbreaks

In the early twentieth century, World Health Organization (WHO) considered Botulism as a worldwide health problem. The term botulism, from the Latin "botulus" meaning sausage, was first described in the late 17^{th} century in Germany as to characterize intoxication due to ingestion of contaminated sausages (Lecour-Menezes, 1983).

In the second half of the twentieth century, botulism was considered a rare and past disease but the existing numbers and records did not show a decreasing tendency, including in developed countries (Lecour-Menezes, 1983).

In Portugal, the Infectious Diseases Service of Hospital de São João faced 9 outbreaks of botulism between 1970 and 1983, as described in a paper published in 1983 by Professor Henrique Lecour, at the time as Interim Director. In these nine outbreaks, seven occurred in rural areas from northern Portugal. During these years, in 35 patients with botulism, 24 were hospitalized and 11 of them were discharged due to attenuated forms of the disease. The numbers of cases in each outbreak ranged from one

to 10 cases, with an average number of four patients per outbreak. The hospitalized patients were all between five and 51 years old, and from those 24 patients, six were under 15 years old (Lecour-Menezes, 1983).

In eight out of nine outbreaks, it was identified the presence of contaminated food, seven of them contaminated ham or sausages and in one of them due to ingestion of contaminated mussels. In all cases, the food had homemade confection. All patients had a favorable outcome (Lecour-Menezes, 1983).

New disease, new challenge

The implementation of new vaccines in the National Vaccination Plan coupled with the increased coverage of vaccination in the Portuguese population allowed the change on the spectrum of the infectious diseases. Cholera, diphtheria and tetanus patients began to decrease and new pathologies began to emerge, such as HIV, opportunistic infections and nosocomial infections.

The first case of HIV registered in Portugal was in 1983 and two years later, under Professor Lecour´s management, it was recorded the first three cases of HIV-2 infection in the Infectious Diseases Service of Hospital de São João. Also in this Service, in 1986, the first case of HIV-1 was recorded in a homosexual and, lastly, in 1987 the first cases in heterosexuals and drug addicts emerged (Mota-Miranda, 1999a). This serious public health problem forced the Service to respond with the opening, in 1988, of an Ambulatory Care Unit for HIV-patients.

In 1999, Professor Mota Miranda, Director of the Infectious Diseases Service two years later, included in his PhD thesis the data from HIV infection, between 1985 and 1997, of the Infectious Diseases Service of Hospital de São João. In this period, 1445 HIV-patients were observed in this Service - Fig.11 shows the evolution of those HIV cases over the years (Mota-Miranda, 1999a).

The first three cases were reported in 1985, but it was in 1987 that the spread became more evident, with 32 new cases reported and in 1997, more 293 new cases were observed (Mota-Miranda, 1999a).

Regarding the type of virus, Fig. 12, from the total of 1445 patients, 1344 (93%) had HIV-1 infection, 97 patients (7%) HIV-2, 3 patients were co-infected by both virus and in 1 patient, with diagnosis done in 1985, the virus could not be identified as no discriminative tests were available at that time. This epidemic outbreak occurred mainly

due to HIV-1 infection, mostly related to the behaviors risk with drugs addiction and heterosexual relationships (Fig.13) (Mota-Miranda, 1999a).

In the first years of HIV infection, Kaposi´s Sarcoma was the most common neoplasm in AIDS patients and in many, it was the first manifestation of AIDS. In 1999, an article published by Infectious Diseases Service´s physicians (Mota-Miranda et al, 1999b) described the epidemiological, clinical and therapeutic aspects of 45 patients with Kaposi´s Sarcoma (Fig.14) between 1985 and 1997. Over this twelve-year period, from the 1445 HIV patients, 552 suffered from AIDS. Kaposi´s Sarcoma was diagnosed in 45 patients (3%) (Mota-Miranda et al, 1999b). Fig.15 reveals the distribution of the neoplasia by occurrence year. Patients were aged between 14-62 years, with 41 (91%) male patients and four (9%) female patients (Mota-Miranda et al, 1999b).

Concerning the mode of transmission of HIV, in nineteen (42%) patients were due to homosexual contact, twelve (27%) due to heterosexual contact, ten (22%) were drug addicts, blood transfusion was responsible in three (7%) cases and, lastly, one (2%) case was of unidentified/unknown transmission (Mota-Miranda et al, 1999b).

About clinical presentation, 27 (60%) patients showed cutaneous-mucous disease, twelve (27%) had cutaneous involvement, two (4%) pulmonary and gastric involvement, one (1%) gastric, one (2%) hepatic and one (2%) oral mucosa involvement (Mota-Miranda et al, 1999b).

Kaposi´s Sarcoma was one of the first manifestations that allowed the description of AIDS stage, appearing in the early years of the epidemic in about 40-45% of infected patients (Mota-Miranda et al, 1999b). The advances on screening and diagnosis methods, combined with the evolution of pharmacological therapy, allowed the considerable cases decrease of Kaposi´s Sarcoma over the years.

Infectious Diseases Intensive Care Unit – a landmark

The need to set up an Infectious Diseases Intensive Care Unit (ID-ICU) was mainly due to the many hospitalized patients with severe infectious conditions needing permanent monitoring. Consequently, on 1 January 1988, it was created the ID-ICU on behalf of Professor Henrique Lecour´s management, occupying an area of 28m^2, with a four beds capacity and with monitoring and ventilatory support. In fact, the history of this Unit began two years earlier, in 1986, when it was launched the “Severe Patient Room” for the patients who needed the most care, however, without any sophisticated equipment, which later would become the ID-ICU (Pereira et al, 1999).

The Unit is primarily intended for patients of all ages with infectious diseases requiring intensive care and surveillance, though this Unit is also able to accept other patients with non-infectious diseases in case of lack of vacancy in others ICU of the Hospital (Pereira et al, 1999).

In 2000, this unit was renovated, increasing the internment area to 130m^2 and the capacity to six beds, with more sophisticated infrastructure and equipment (Pereira et al, 1999).

In 1999, a published paper from four physicians of the Infectious Diseases Service included the clinical data from the ID-ICU between 1988 and 1997 (Alves-Pereira et al, 1999). During this period, 1191 patients were hospitalized, whose admission criteria were the permanent monitoring and circulatory and/or ventilatory support measures needed. Patients were between 1 month of age and 93 years of age, which 822 (69%) were 15 years of age or older and 369 (31%) were younger. The occupancy rate ranged from 74,7% in 1996 to 90,8% in 1997 and the period of hospitalization (on average) from 6,7 days in 1988 to 12,5 days in 1994 and 1996 (Alves-Pereira et al, 1999), data presented by the authors (Fig.16).

Concerning the different pathologies that led to hospitalization in this Unit between 1988-1997 (Fig.17), the Central Nervous System infections were the most common ones, from the 503 patients (corresponding to 42,2% of total patients), 400 (79,5%) had meningitis and 103 (20,5%) had encephalitis. The second most common pathology was tetanus with 143 cases (12%) in which 118 were in the most severe form of disease. During this period, 944 patients (79,3%) were discharged and 247 (20,7%) died. It is noteworthy that the mortality from severe tetanus was more than 50% before the existence of this Intensive Care Unit and it decreased to about 20% when the patient was continuously monitored (Alves-Pereira et al, 1999).

The authors concluded that in spite of the insufficient conditions of the ID-ICU between 1988 and 1997 at both infrastructure and staff levels, the results were quite satisfactory when compared with other reference centers (Alves-Pereira et al, 1999).

The contribution of this Unit is also remarkable in postgraduate education, in particularly the training of Infectious Diseases Interns, and undergraduate education in sensitizing the students to the severity of some infectious diseases that occur in the community and require immediate intensive care (Alves-Pereira et al, 1999).

This Unit, over the years, contributed to several research works and with publications on several national and international medicine journals (Alves-Pereira et al, 1999).

Imported disease – malaria

Portugal is not a malaria-endemic country and since is uncommon, the diagnosis and treatments become a challenge. Portugal keeps a close relationship with several African countries, especially with former Portuguese colonies, where the diagnosis of malaria is common and still a public health problem.

In 2012, it was published a research describing severe cases of malaria in patients admitted to ID-ICU of Hospital de São João, between 1990 and 2011. The aim of this study was to report the clinical spectrum of severe malaria cases admitted to the ICU and identify the mortality factors in malaria disease (Santos et al, 2012).

Between 1990 and 2011, 284 patients with malaria were admitted to the Infectious Disease Service, of which 59 (20,7%) patients were diagnosed with severe malaria and were transferred to ID-ICU. The ICU admission was based on the presence of at least one of the following: haemodynamic instability, high parasitaemia and life-threatening organ dysfunction. From the 59 patients included, all but three were adults. Forty one (69%) were Portuguese emigrants working in Africa, seven (11,9%) patients were tourists coming from endemic countries, other seven (11,9%) lived in Africa and came to Portugal and the last four (6,8%) worked in boats (Santos et al, 2012).

Nine (15,2%) patients died, which deaths occurred between the second and 28th day of internment, and the majority of them (six patients) occurred in the acute phase of the illness, the other three patients death was related to acute respiratory distress syndrome (ARDS) complications (Santos et al, 2012).

The authors concluded that the key for malaria prevention is the barrier methods and chemoprophylaxis, as well as a pre-travel professional advice. In addition, the authors highlighted that to treat severe malaria it is very important to monitor and provide treatment support according to the dysfunctions presented in an Intensive Care Unit (Santos et al, 2012).

Nosocomial infections and multi-resistant bacteria – the future

In 2010, Professor Lecour, already retired from his clinical activity, presented his major concerns in terms of infectious diseases for the future. He identified the

nosocomial infections and the resistance of microorganisms to antimicrobials, especially bacteria, as the major challenges (Lecour, 2010).

The word "nosocomial" comes from the Greek *nosokomeion* – *nosos* (disease) + *komen* (taking care of) – defined as any infection that results from the provision of health care, regardless wherever it is practiced. Its prevalence in developed countries is worrying, with serious social and economic consequences, especially due to the increase in morbidity and mortality. Likewise, the microbial resistance is showing significant growth worldwide, being Portugal in a prominent place fighting against theses resistances, as result of the exaggerated prescription of antibiotic medication and the ageing of the population, which usually leads to a longer hospital stay (Lecour, 2010).

The most common nosocomial infections are urinary, respiratory, surgical-site, bloodstream, skin and soft tissue and gastrointestinal infection (Lecour, 2010).

In 2017, a study carried out by physicians from the Infectious Diseases Service of Hospital de São João described skin and soft tissue infections in the ID-ICU, between 2006 and 2014. During this period, in this ICU, 30 patients with a diagnosis of severe skin or soft tissue infection were admitted. From these 30 patients, 20 (66,7%) were diagnosed with necrotizing fasciitis, eight (26,7%) diagnosed with abscess and two (6,7%) diagnosed with cellulitis (Malheiro et al, 2017). Some of the mentioned infections that were admitted to ID-ICU are documented in photographs – Fig. 18.

Bacteria resistant to multiple drugs was isolated by surgical drainage, smear from the wound or blood culture in seven (23,3%) patients, approximately 1 in 4 patients. These infections by resistant to multiple drugs were significantly related to previous use of antibiotic and previous contact with health treatment or hospital admission, that is nosocomial infection (Malheiro et al, 2017).

The mortality of these skin and soft tissues infection was high, with the death of 14 (46,7%) patients during hospitalization. The author did not discriminate in how many of these deaths were multiresistant bacteria isolated. However, they emphasize an important change in epidemiology that placed these multiresistant bacteria as common pathogens in skin and soft tissues infections. Consequently, they raise the question of which empirical antibiotics are the best given this new epidemiological panorama (Malheiro et al, 2017).

Discussion

This dissertation has the intention to be a contribution for the knowledge of the history regarding the first 55 years of the Infectious Diseases of Hospital de São João, in Oporto.

The Infectious Diseases Service began in 1964 with Inpatient Care and Urgency Units only. Today, this Service also counts with the Outpatient Consultations, Ambulatory Care and Intensive Care Unit.

It is not possible to dissociate the history of the Service from its Directors, physicians and others health professionals, who over the past 55 years have worked to bring the best healthcare to the population. Thus, several improvements have been made over the years to keep up with the daily challenges and the evolution of science and knowledge. However, given the fact that Portugal is a country of scarce economic resources, these improvements were often slowly and with reused resources from other Hospitals' Services or even obsolete ones, requiring to health professionals their double effort.

It was possible to notice that the health professionals of the Infectious Diseases Service did not give up during the cholera outbreak, on the contrary, with much resilience and professionalism, they have succeeded in giving the best response to the Oporto population. Their actions based not only on the treatment of cholera but also on public measures through campaigns of awareness and prevention.

Even with the known lack of resources, between 1988 and 1999, the Intensive Care Unit outcome was a success, which confirmed its indispensability when referring to infectious diseases. For instance, the mortality from severe tetanus was more than 50% before the existence of this Intensive Care Unit and it decreased to about 20% when the patient was continuously monitored. In fact, this Unit's good results leaded to an investment in its requalification by 1999. With this improvement, today this Unit is able to provide a polyvalent response, meaning that it can treat patients outside the scope of infectious diseases if necessary. Moreover, it has become an asset in improving pre- and post-graduate education, allowing even more qualified health professionals.

The constant knowledge update by the health professionals of this Service is essential and it is only in this way that it is possible to treat such a wide range of infectious diseases that are emerging or reemerging over time. For instance, when HIV emerged, the Service responded rapidly to the exponential evolution of the infectious by

providing an Ambulatory Care to HIV patients and investing in health professionals who specialized in this infection.

Finally, the future of Infectious Diseases Service of the Hospital de São João will surely face more challenges, such as nosocomial infections and bacteria resistant to multiple drugs. Hence, it will be up to its Directors, Physicians and Healthcare Professionals to make bold decisions, as others once did, always with the aim of providing the best health care to the population.

In conclusion, over these years, although the Infectious Diseases Service, have often been neglected and have faced several difficulties, the health professionals behind it struggled and succeeded to give the most dignified, humane, scientific and the most effective conditions for their patients.

Illustrations

Domingo, 1 de Novembro de 1964

Diário de Notícias

DIRECTOR — AUGUSTO DE CASTRO

Sortido RICO Nacional

FABRICO E COMPOSIÇÃO ORIENTADOS PELA TÉCNICA INGLESA

O Chefe do Estado, acompanhado pela directora do Instituto de Odivelas, é saudado pelas educandas daquele estabelecimento de ensino, no momento em que ali chegava

IMPORTANTES REFORMAS NOS SERVIÇOS HOSPITALARES ANUNCIADAS PELO MINISTRO DA SAÚDE

◆ Normalização dos débitos hospitalares e regulamentação da actividade dos hospitais regionais

PORTO, 31 — Começou hoje a funcionar, a partir das 13 horas, o Banco de Urgência do Hospital de S. João. Nos primeiros tempos e enquanto não estiverem concluídas as obras, apenas serão recebidos doentes da freguesia de Paranhos, desta cidade, e de todos os concelhos do Porto (sub-regiões ao Norte do rio Douro). Velha aspiração dos portuenses, que até agora eram socorridos na totalidade no Hospital de Santo António, o acontecimento fez rejubilar todos os que estão ligados aos serviços hospitalares na região nortenha. A demora da entrada em funcionamento deste serviço foi motivada, principalmente por não estarem a funcionar todos os restantes serviços, facto que cessou com a entrada em funcionamento do único serviço que faltava — o de Infecto-Contagiosos. Os serviços ficarão divididos em três grandes departamentos. O departamento A destina-se a aceitação dos doentes e tratamento dos pequenos casos; o B está dotado de salas de operações, observações e radiodiagnóstico, para casos de média gravidade. Os casos de mais importância, que necessitem de cuidados especiais, sobretudo reanimação, serão desviados para o departamento C, constituído pelos serviços de internamento, e que ficarão de guarda, de acordo com a equipa médica que estiver no serviço de urgência e, simultaneamente, as salas de reanima-

(Continua na 12.ª página)

PREPOTÊNCIA INDIANA EM GOA, DAMÃO E DIO

Figure 1. Portuguese periodical newspaper, "Diário de Notícias" on 1 November 1964, announcing the opening of the Urgency Service and the Infectious Diseases Service of Hospital de São João (Serviços…, 1 nov, 1964, p.1).

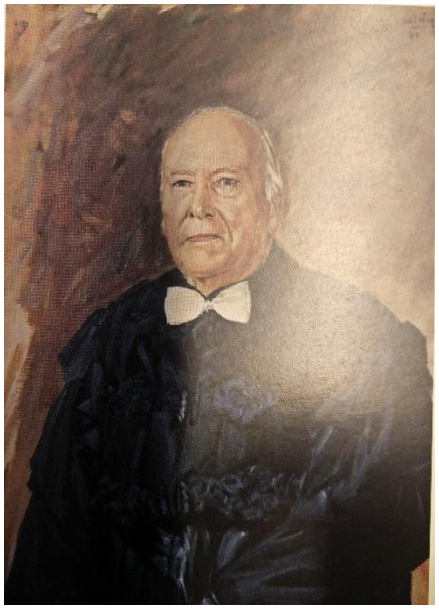


Figure 2. Professor Fonseca e Castro - the first Director of Infectious Diseases Service of Hospital de São João, between 1964 and 1968 (Ricon-Ferraz, Guimarães, Caldas-Afonso, 2013, p.23).

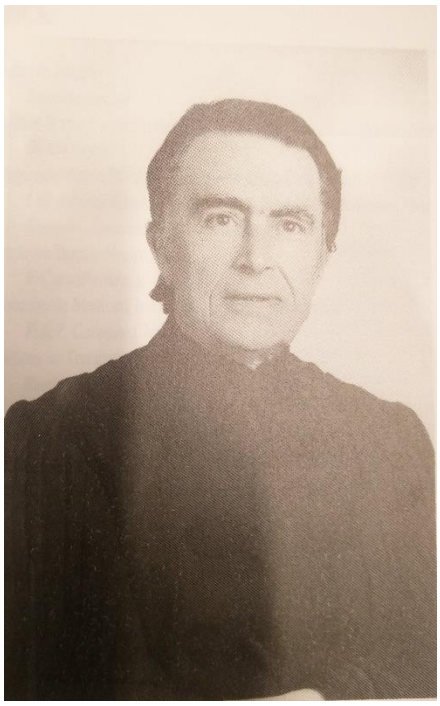


Figure 3. Professor Cerqueira Magro - Director of Infectious Diseases Service of Hospital de São João between 1978 and 1985 (Frada, Lecour-Menezes, 1992, p.1).

Figure 4. Professor Henrique Lecour - Director of Infectious Diseases Service of Hospital de São João between 1985 and 2000 (O Passado…, 11 out. 2017).

Figure 5. Professor Mota Miranda - Director of Infectious Diseases Service of Hospital de São João between 2001 and 2007 (Infecciologia…, s.d.).

Figure 6. Professor António Sarmento - current Director of Infectious Diseases Service of Hospital de São João (Interações farmacológicas…, 18 out. 2017).

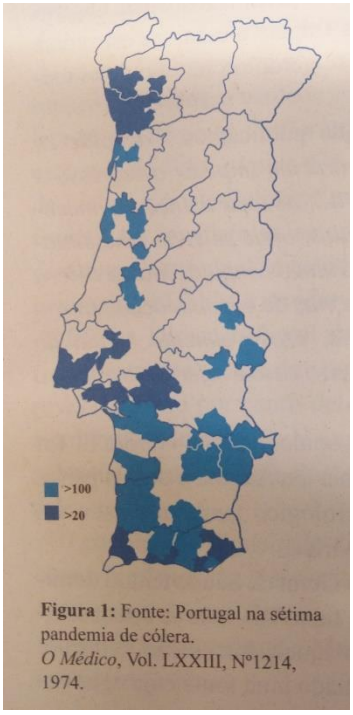


Figura 1: Fonte: Portugal na sétima pandemia de cólera.
O Médico, Vol. LXXIII, Nº1214, 1974.

Figure 7. Cholera outbreak in Portugal, 1974 (Maltez, Almeida, Roseira, 2014, p.46).

Figure 8. Front page of Portuguese periodical newspaper, "Jornal de Notícias" on 6 August 1974, reporting the alarming situation of Cholera in Portugal, particularly in Oporto (Cólera…, 6 ago. 1974, p.1).

CÓLERA: PANORAMA ALARMANTE A NORTE DE AVEIRO

OS HOSPITAIS NÃO TÊM MEIOS PARA FAZER FACE À SITUAÇÃO

• HÁ QUE DECRETAR O ESTADO DE EMERGÊNCIA

Perante um surto de cólera como não há memória nas últimas décadas, os dois únicos hospitais da cidade do Porto que tratam de doenças infecto-contagiosas (e a que estão afectas as populações a norte do distrito de Aveiro!) encontram-se absolutamente impotentes para corresponder às exigências da actual epidemia, uma vez que lhes falta tudo. Nem instalações, nem médicos, nem enfermeiros, nem pessoal de limpeza. Só lhes sobram doenças e carências de toda a ordem.

A situação é, na verdade, muito grave. Gravíssima mesmo, uma vez que os hospitais de Joaquim Urbano e de S. João são os maiores «depósitos» de todos os padecentes...

Mas o melhor é passar aos factos.

Às 11 horas de ontem, a sala de espera do Hospital de Joaquim Urbano abarrotava.

— Estou aqui desde as 6 da manhã. O porteiro disse-me que só lá para as 10 chegava o médico. Fui ao Santo António e mandaram-me para aqui outra vez.

É, cinco horas depois, Julia Ferreira Pinto, de 19 anos, da Rua dos Mercadores, ainda não fora atendida. Deitada num banco, passava a vida a correr para o quarto-de-banho.

Sentindo-se abandonadas, com os filhos ao colo, cada qual berrando pelo seu lado, aquelas mães lamentavam a sua desdita. Uma delas tinha uma criança atacada de febre altosa e de sarampo, segundo nos disse, e também esperava há mais de três horas para ser atendida.

— Ai que este meu filho morre-me nos braços! Está com 40 de febre e ninguém se importa com os pobres!

Espectáculo angustiante

Sempre a chegar pessoas e nenhum vislumbre de serem atendidas. Velhos e novos a correr para o quarto-de-banho por causa da maltadada diarreia e outros a vomitar no chão, num espectáculo que, em dada altura, arrepiava o mais indiferente — tal o quadro que se observava naquela sala.

A situação era de tal modo incomodativa, que levou um comerciante, que fora buscar uma tia que ali morrera, a desabafar:

— Ao ver-se isto, até consegues matar aqueles que não estão doentes.

Quando o desespero não suportava mais palliativos, as pessoas correram pelo hospital dentro, à procura de quem as atendesse...

O panorama no Joaquim Urbano, mandado construir em 1934 por causa de um outro surto epidémico de cólera, confrange, realmente. Precisa, com urgência, de ser extirpado. Mas, pelo que vimos no Serviço de Infecto-Contagiosas do Hospital de S. João, o problema não é menos confrangedor. Também lá um indivíduo com saúde fica doente ao ver o que vê: camas pelo corredor; dois doentes numa só cama; crianças nuas (por falta de roupas do próprio hospital); frascos de soro colados às paredes por carência de suportes convenientes; a ementa retrete para homens e mulheres.

(Continua na página seguinte)

Reportagem de AURÉLIO CUNHA

No Hospital de Joaquim Urbano, não constantes as filas de gente que, ou tem a cólera, ou suspeita de haver sido atacada pelo vírus. Uma vez ali... de longuíssimas esperas.

Figure 9. Portuguese periodical newspaper, "Jornal de Notícias" on 6 August 1974, describing the reality of Cholera outbreak in Hospital de São João (Cólera…, 6 ago. 1974, p.7).

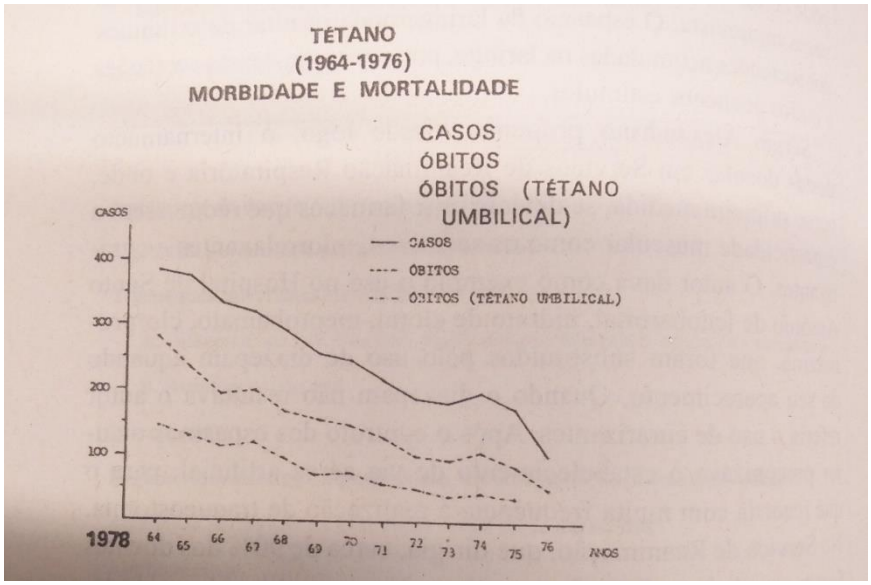
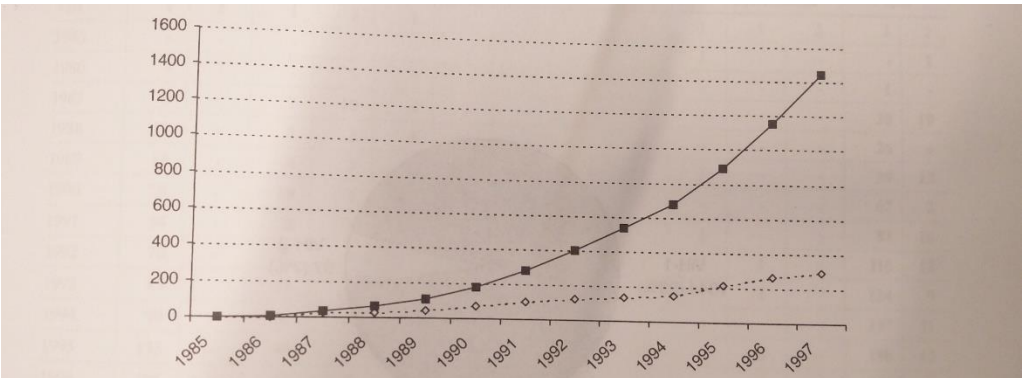


Figure 10. Tetanus morbidity and mortality, between 1964 and 1976. Data from the Infectious Diseases Service of Hospital de São João (Maltez, Almeida, Roseira, 2014, p.364).



Ano	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Novos casos	3	1	32	31	42	69	97	122	133	148	210	264	293
Casos acumulados	3	4	36	67	109	178	275	397	530	678	888	1152	1445

Figura 4: evolução anual dos casos registados no Serviço de Doenças Infecciosas

Figure 11. HIV cases, between 1985-1997, in the Infectious Diseases Service of Hospital de São João (Mota-Miranda, 1999a).

Tipo de vírus	n.º	%
VIH-1	1.344	93
VIH-2	97	7
Co-infecção pelos dois vírus	3	-
VIH não identificado	1	-
Total	**1.445**	**100**

Quadro XXIII: tipo de vírus - experiência do Serviço

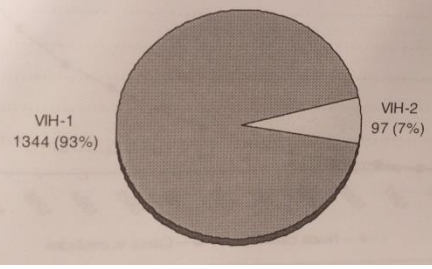


Figure 12. Types of HIV virus (Mota-Miranda, 1999a).

Ano	Toxicómano		Heterossexual		Homo/bissexual		Transfundido		Hemofílico		Desconhecido		Total*	
VIH	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1985	-	-	-	-	-	-	-	-	-	1	-	-	-	1
1986	-	-	-	-	1	-	-	-	-	-	-	-	1	-
1987	6	-	7	10	4	-	-	-	3	-	-	-	20	10
1988	13	-	7	3	5	-	-	1	1	-	-	-	26	4
1989	13	-	4	5	12	-	-	4	1	3	-	-	30	12
1990	29	-	19	1	18	-	1	1	-	-	-	-	67	2
1991	54	-	8	8	18	-	1	5	-	3	-	-	81	16
1992	70	-	20	7	17	-	2	3	1	2	1	-	110	12
1993	83	-	28	4	11	1	-	4	-	-	2	-	124	9
1994	90	-	32	3	15	-	-	8	-	-	-	-	137	11
1995	133	-	44	5	19	-	-	3	-	3	3	-	198	12
1996	196	-	41	4	18	-	1	-	1	-	2	1	259	5
1997	227	-	41	2	20	-	-	1	-	-	2	-	293	3
Total	**914**	**-**	**250**	**53**	**158**	**1**	**5**	**30**	**7**	**12**	**10**	**1**	**1.344**	**97**
%	*63,3*	*-*	*17,3*	*3,6*	*10,9*	*0,1*	*0,3*	*2,1*	*0,5*	*0,8*	*0,7*	*0,1*	*93,0*	*6,7*

* A acrescentar ainda três hemofílicos com co-infecção pelos dois vírus e um infectado por tipo de vírus não identificado - 0,3%.

Quadro XXIV: distribuição anual por risco e tipo de vírus - experiência do Serviço

Figure 13. Risk behaviors for HIV infection (Mota-Miranda, 1999a).

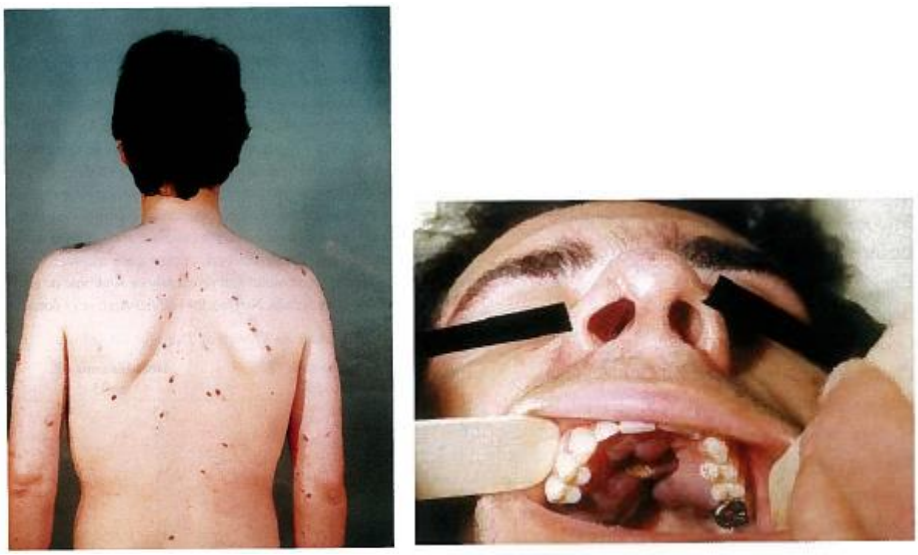


Figure 14. Kaposi´s Sarcoma. Patient from the Infectious Diseases Service of Hospital de São João (Mota-Miranda et al, 1999b).

Anos	Doentes com SK	
	n	%
1985-1989	7	15
1990-1994	22	49
1995-1997	16	36
Total	**45**	**100**

Figure 15. Kaposi´s Sarcoma per diagnosis year (Mota-Miranda et al, 1999b).

Quadro I - Movimento anual da UCIDI (1988-97)

Ano	Total	Sexo		Idade				Média internamento	Taxa de ocupação
		Masc.	Fem.	< 15 anos	≥ 15 anos anos	Variação anos	Média	(dias) (anos)	(%)
1988	**173**	88	85	73	100	1m-91a	29.8±27.4	6.7	80.0
1989	**144**	66	78	76	68	1m-88a	26.5±28.5	8.8	86.7
1990	**103**	51	52	23	80	2m-93a	40.8±26.2	11.8	86.7
1991	**133**	76	57	44	89	2m-82a	33.4±25.6	8.8	84.2
1992	**119**	72	47	40	79	1m-82a	30.1±25.2	11.1	90.0
1993	**90**	58	32	24	66	1m-81a	33.0±24.0	10.1	81.9
1994	**96**	53	43	29	67	3m-83a	47.0±22.0	12.5	81.9
1995	**127**	81	46	29	98	2m-83a	32.9±23.9	9.5	85.3
1996	**87**	55	32	13	74	3m-90a	44.0±23.6	12.5	74.7
1997	**119**	67	52	18	101	1m-86a	36.0±22.0	11.0	90.8
Total	**1191**	**667**	**524**	**369**	**822**				

Figure 16. Patients admitted to Infectious Diseases Intensive Care Unit between 1988 and 1997 (Alves-Pereira et al, 1999).

Quadro II - Movimento anual da UCIDI por patologias

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	Total	%
Meningites	61	45	44	52	47	31	21	45	23	31	**400**	33.6
Encefalites	11	11	8	16	5	8	13	12	5	14	**103**	8.6
Tétano	28	18	16	15	14	8	14	13	11	6	**143**	12.0
Meningococemia	15	14	8	14	10	3	7	6	1	5	**83**	7.0
Sepsis	10	1	2	8	8	7	3	2	6	13	**70**	5.9
SIDA	1	1	2	4	2	2	2	12	12	14	**52**	4.4
Pneumonias	1	2	5	4	4	8	9	7	7	4	**51**	4.3
Hepatite fulminante	4	3	4	5	6	4	5	8	5	5	**49**	4.1
Outras infecções	37	43	10	11	10	14	14	14	10	17	**180**	15.1
Causas não infecciosas	5	6	4	4	3	5	8	8	7	10	**60**	5.0
Total	**173**	**144**	**103**	**133**	**119**	**90**	**96**	**127**	**87**	**119**	**1191**	**100**
Ventilação mecânica	27	33	30	30	32	22	23	26	39	47	**309**	25.9
Óbitos	35	28	20	19	23	15	20	27	29	31	**247**	20.7
Mortalidade (%)	20.2	19.5	19.4	14.3	19.3	16.7	20.8	21.3	33.3	26.1	**20.7**	

Figure 17. Pathologies that led to hospitalization in Infectious Diseases Intensive Care Unit, between 1988 and 1997 (Alves-Pereira et al, 1999).

Figure 18. Skin and soft tissues infections at the Infectious Diseases Service of Hospital de São João, between the years 2006 and 2014 (Malheiro et al, 2017).

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ANEXO

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- *História, Ciências, Saúde - Manguinhos* aceita colaborações em português, espanhol e inglês para todas as seções. Os manuscritos devem ser fornecidos no formato .doc ou .rtf.
- O texto deve ser apresentado em Times New Roman, tamanho 12, com espaçamento 1,5.
- Os manuscritos devem ser acompanhados de **folha de rosto** em que constem: título do trabalho; nome do autor; ORCID; instituição de afiliação; cargo ocupado na instituição; cidade, estado e país da instituição; *e-mail* do autor. Quando houver mais de um autor, informar os dados de cada autor. Nenhum outro local do manuscrito deve permitir a identificação do(s) autor(es).
- A **contagem de palavras** indicada para cada seção inclui notas, referências, quadros e tabelas.
- Os artigos devem vir acompanhados de **resumo** no idioma do manuscrito com, no máximo, 120 palavras.
- Os autores devem apresentar entre três e cinco **palavras-chave**, no idioma do manuscrito, representativas do conteúdo do trabalho. Sugere-se o uso dos Descritores em Ciências da Saúde.
- Nas **citações** diretas, é necessário especificar o autor, o ano e a página da citação. Todas as citações de obras em outros idiomas devem ser traduzidas para o idioma do manuscrito; a inclusão do trecho original em nota é opcional. As citações com até cinco linhas são apresentadas no corpo do texto, entre aspas duplas. As que ultrapassam cinco linhas aparecem em parágrafo isolado, com recuo de 3 cm e espaçamento simples.
- Pede-se que os autores destaquem termos ou expressões no texto por meio de aspas duplas, nunca por itálico ou negrito.
- As **ilustrações** compreendem tabelas, quadros, figuras, gravuras, gráficos e desenhos em geral. Todas devem ser apresentadas em arquivos separados do texto.
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- **Imagens** devem ter resolução mínima de 300 dpi reais (não interpolados), em tamanho natural, salvas em formato JPEG, TIFF ou PNG e em cores RGB.
- **Tabelas e gráficos** devem ser apresentados com conteúdo editável. Tabelas em arquivos Word ou Excel. Gráficos e respectivos dados numéricos em Excel.

- Devem ser observadas cuidadosamente as regras de **nomenclatura zoológica e botânica**, assim como abreviaturas e convenções adotadas em disciplinas especializadas.
- As **notas**, restritas ao mínimo indispensável, devem ser explicativas, numeradas com algarismos romanos e inseridas como notas de fim utilizando a ferramenta do processador de texto. As notas não devem ser usadas para menção a documentos ou obras citadas.
- Indicação de **fontes de financiamento e agradecimentos** devem vir ao fim do artigo, antes das referências bibliográficas.
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