

important in the prevention and management of osteoporosis. Exercises improve mobility in elder inpatient by increasing activity, muscular strength, flexibility, and reducing the risk of falls and length of stay in hospital.

**Objectives:** The aim of our study was to investigate the effects of physiotherapy and rehabilitation program on mobility, physical activity and quality of life in elderly inpatient.

**Methods:** A hundred and twenty four patient with OP (mean age: 73,03±5,9) participated in this study. A total of patients who were randomized as study and control group followed by Hacettepe University Faculty of Medicine Department of Internal Medicine, Division of Geriatric Medicine Department of Physiotherapy and Rehabilitation, Geriatric Rehabilitation Unit were, were included to the study. Assessment for cognitive function (Mini Mental State Test), functional mobility (De Morton Mobility Index), activities of daily living (Katz Index of Independence in Activities of Daily Living), quality of life (EuroQoL-5D) were used at admission and discharge in hospital. Thirty minutes physiotherapy and rehabilitation program including breathing, balance and coordination and strengthening exercises was performed by the intervention group under supervision of physiotherapist during the stay in hospital. Control group did not special exercise, they continued their activities of daily living. exercise. Length of stay in hospital of all participant was recorded.

**Results:** Sixty two patients were randomly assigned to the each group. The groups were similar in sociodemographical feature ( $p>0.05$ ). Improvements in mobility, quality of life and daily physical activity levels were found in the study group ( $p<0.05$ ). There were no significant differences between control and intervention group in length of stay in hospital ( $p>0.05$ ).

TABLE I. Results of the 3 primary outcome measures at admission and discharge for the two groups

		X± SD Admission	X± SD Discharge	p
DEMI	Intervention Group	50,64±20,59	57,82±22,35	0,000*
	Control Group	47,91±22,01	48,56±21,72	
Katz ADL	Intervention Group	14,30±3,13	15,98±2,91	0,001*
	Control Group	14,35±2,42	14,61±2,44	
EQ-5D	Intervention Group	9,87±4,74	9,58±4,65	0,019*
	Control Group	9,50±2,24	9,51±2,17	

X±SD : Mean ± Standard Deviations, DEMI : De Morton Mobility Index, KATZ : The Katz Index of Independence in Activities of Daily Living , EQ5D : The EuroQoL

**Conclusions:** These results revealed the necessity of physiotherapy and rehabilitation program to prevent negative effects of the hospitalization process of the geriatric patients with osteoporosis.

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**HPR service developments, innovation and economics in healthcare**

**THU0760-HPR PATIENT ADVICE LINE - THE POTENTIAL CLINICAL AND FINANCIAL BENEFITS TO A RHEUMATOLOGY DEPARTMENT**

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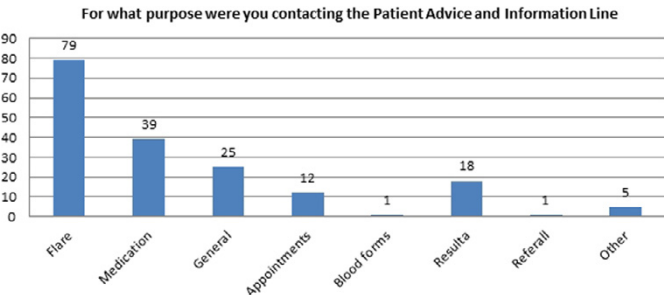
**Background:** EULAR recommendation 3 for the role of the nurse in the management of chronic inflammatory arthritis states that patients should have access to nurse-led telephone services to enhance continuity of care and to provide ongoing support (1). In the UK quality standard 6 of the National Institute for Health and Care Excellence guidelines for the care of rheumatoid arthritis (RA) recommends that people with RA and disease flares, or possible drug related side effects should receive advice within 1 working day of contacting the rheumatology service. In 2016 audit data from England and Wales show that 96% of trusts report being able to provide patients with a telephone advice line but no further detail on these services was available (2).

**Objectives:** Data from our patient advice line were collected over a 6 month period. The objective was to understand who was using the helpline, the speed of our response, how much of the workload could be managed by nursing staff and the clinical and financial impact.

**Methods:** All patient calls made to our patient helpline were recorded and data were collected prospectively on patient demographics, disease, purpose of call, response time and the cost and revenue produced. Patient feedback was collected via a questionnaire. Data were collected from April 2016 to November 2016.

**Results:** 150 patient calls were responded to. 108 calls were from females and were 42 from males. The majority of patients had RA (75/150). Other conditions

are displayed in the graph below. The majority of calls were regarding a flare of their condition or medication queries (79/180 and 39/180 respectively) with some patients calling for more than one reason. 83% of calls were answered within 24 hours. A clinical nurse specialist is available to respond to calls over weekends. Income generated from responding to calls by the department was £ 1900 per month. Expenditure was £ 1650 per month. Patient satisfaction was high with 130/150 stating the main reason for the call was answered to their satisfaction (7 stating no, 13 not stated).



**Conclusions:** Our advice line gives patients easy access to specialist advice. Patient satisfaction is high. Responses are timely and fast. Multiple concerns are commonly addressed, such as advice regarding flare of disease and medication queries. This service will be

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**THU0761-HPR BIOLOGICAL THERAPY SURVIVAL: MULTI-CENTRIC ANALYSIS IN REAL CLINICAL PRACTICE CONDITIONS**

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**Background:** Biological treatment (BT) has changed the evolution of rheumatic diseases. A way to evaluate the effectiveness of BTs is considering therapeutic survival as an effectiveness surrogate marker

**Objectives:** To describe BT use; To evaluate BT survival in indications according to product label, in clinical practice, in 3 Spanish hospitals

**Methods:** Observational retrospective study, based on clinical history (CH) revisions of patients with Rheumatoid arthritis (RA), Psoriatic Arthritis (PA), and Espondiloarthritis (EA) treated with BT.

CH standardization was performed by data collected since 2013 by rheumatologists thought MEDiadd® RHEUMA tool.

Variables: age, gender, indication (RA, PA, EA) TB: Etanercept (ETN), adalimumab (ADA), certolizumab (CRT), golimumab (GOLI), infliximab (IFX), abatacept (ABA), tocilizumab (TCZ), rituximab (RTX). Start and end date from 2002 to 2016

Exclusion criteria: Patients and/or treatment lines with incomplete data (lack data or  $n<15$ ) were also excluded.

Descriptive statistics and Kaplan-Meier survival analysis were performed with r-project.com

**Results:** From initial 1155 patients, 76 were excluded because of incomplete data. Almost half of the patients (42.35%) were diagnosed with RA, 30.03% have EA and 18.07% PA. 10% were excluded because of other indications. 79.46% of patients with RA are women, as 36.36% of EA and 50.96% of PA; Most of the patients are over 55y. In all indications, the range of 36-54y is the one that present a higher percentage of patients.

For the Kaplan-Meier survival analysis, the complete set of BT that each patient had received was analyzed independently, considering 1206 cases. Table 1 shows average time and percentage survival at 1st year

After 1 year, ETN showed the higher rates of survival in RA (98.5%); IFX (100%), and ETN (99%) in PA; and GOLI (100%) followed by ETN (95.8%) in EA. Those BT were used to compare survival curves, finding differences in all cases ( $\alpha=0.05$ ) except in IFXvsETN in RA; ETNvsIFX in PA; and IFXvs GOLI in EA. Analysis after 5 years showed that the higher survival rates were for IFX in RA (94.4%) and PA (94.7%) and for ETN in EA (89.4%)

**Conclusions:** BTs with highest survival rates are ETN and IFX for RA and Aps; In EA, GOLI presents a higher rate at 1-year, but at 5-year is overcome by ETN Standardized information is crucial to assess the global impact of BT. CH analysis reveals clinical practices which describe the effectiveness of treatments in the world, which can help in the decision-making process

**Acknowledgements:** By their collaboration: Dr Casado; Dr Valls; Dr Martinez; Dr Aguilar; Dr Vergara; Dr Begazo

Abstract THU0761-HPR – Table 1

Indication	Time (months)	ABA	ADA	CERTO	ETN	GOLI	IFX	RTX	TCZ
RA	$\bar{x}$	29,7	58,6	28,8	57,4	24,6	27,3	60,5	35,7
	ED	22	42,5	17,7	39,7	20,4	25	32,8	27,1
	1-year (%)	98	93	89,6	<b>98,5</b>	77,8	94,4	97,8	88,4
	1-year CI95%	0,942–1	0,881–0,981	0,805–0,998	0,968–1	0,6076–0,996	0,844–1	0,937–1	0,812–0,963
	p-value	<0,001*	0,011*	<0,001*		<0,001*	<b>0,115</b>	0,005*	<0,001*
PA	$\bar{x}$		43,4		59,6	37,3	51,8		
	ED		33,7		46,6	19,1	27,5		
	1-year (%)		87,8		99	91,7	<b>100</b>		
	1-year CI95%		0,802–0,961		0,971–1	0,831–1			
	p-value		0,025*		<b>0,894</b>	0,007*			
EA	$\bar{x}$		43,1		54,2	33,7	51,4		
	ED		32,2		37,1	16,7	47,6		
	1-year (%)		95,6		95,8	<b>100</b>	93,5		
	1-year CI95		0,921–0,991		0,923–0,995		0,853–1		
	p-value		0,04*		0,008*		<b>0,06</b>		

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# **THU0762-HPR ONLINE CONSULTATION FOR CHINESE PATIENTS WITH RHEUMATIC DISEASES BASED ON SMART SYSTEM OF DISEASE MANAGEMENT (SSDM) MOBILE TOOLS: A STUDY OF MEDICAL ECONOMICS**

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**Background:** China doesn't have efficient primary medical care and referral system. Patients can choose any hospitals or any doctors they like to seek medical care. As a result, most patients with rheumatic diseases rushed to a few large cities. Survey shows that more than 40% of the rheumatic disease patients are unnecessary to go to hospital and they only need advices from specialist. Smart System of Disease Management (SSDM) is a series of applications for chronic diseases management, which develop the interaction between doctors and patients. Our previous study showed that rheumatoid arthritis (RA) patients can master the SSDM and perform self-management after training, including disease activity score with 28 joints (DAS28) and health assessment questionnaire (HAQ) evaluations, as well as medication and lab test data entries.

**Objectives:** To evaluate the feasibility and benefit of the medical economics of online consultation based on SSDM by rheumatologist.

**Methods:** The rheumatologists implemented the education and training programs on patients in using SSDM and assist the patients in downloading SSDM mobile application. The SSDM includes doctors' and patients' applications. After data entry, patients can synchronize data to their authorized doctor. On the basis of these data, the rheumatologists can accept the request from their follow-up patients through SSDM and practice consultation in the form of text or telephone call.

**Results:** From February 2015 to January 2017, 333 rheumatologists supplied 3,119 patients (RA 46%, systemic lupus erythematosus 22%, ankylosing spondylitis 12%, Gout 11%, osteoarthritis 4%, other rheumatic diseases 5%) with 136 times free and 3,556 paid consultations. Paid consulting included 3,537 times text Q&A and 19 telephone consultations. The consulting fee ranged from RMB 10 to 500 yuan (EUR: RMB =1: 7.33) each in average of 121.3±55.19 yuan, which rate match the registration fee in hospital. The total collection of fee for consultations was 399,320 yuan RMB. 35.9% patients receiving online consultation lived in different city with the rheumatologists. If patients seek medical in hospital, in addition to the registration fees and medical expenses, the mean cost of transportation, accommodation, meals and lost wages was 552.68±477.51 (200 - 2,800) yuan. The total cost of for all patients would have been 2, 509,920 yuan RMB, which is 6.29 times compare with the cost of online. Through the SSDM system for online consultations, patients can save 84.09% of the cost. Survey shows all patients were satisfied and 60.28% of them were "very satisfied" with the consultations.

**Conclusions:** Using SSDM system to obtain online consultation, Chinese patients with rheumatic disease can enjoy reduced cost with high satisfaction. In the era lack of primary care system in China, SSDM may serve a complimentary platform to control medical care cost, as well as relieve the tensions between health care professionals and patients.

# **THU0763-HPR ADDRESSING THE ELEPHANT IN THE ROOM: A POSSIBLE NEW AND EFFECTIVE WAY TO INCREASE PATIENT ADHERENCE TO MEDICAL ADVICE**

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**Background:** Lack of Patient adherence to medical advice (PAMA) are recognized as an era of interest for the last decades<sup>1</sup>. There have been several initiatives to improve PAMA such as patient centred care, shared decision-making, introduction of e-health and m-health. Although they are proven better than usual care, neither of these initiatives is proven successful. Outcome of medical interventions depends on complex psychological and sociocultural factors of which many are uncontrolled by health professionals.

**Objectives:** In the present study we assess beliefs about priorities in public health care, and adherence to medical advice to establish a novel approach to increase PAMA.

**Methods:** The Norwegian Citizen Panel (NCP)<sup>2</sup> is an experimental survey. Respondents are randomized to answer similar questions with slightly different wording. NCP is currently about 5000 respondents based on random selection performed by the Norwegian people register. The present study is based on responses to two question experiments from NCP addressing beliefs about priorities in public health care, and adherence to medical advice. The question on priorities in health care is divided in six groups (two control group, four experimental). The question on adherence is divided in three groups (one control group, two experimental). All questions are answered with a seven point Likert scale.

Table 1

Question nr	Question phrases	Result	Confidence Interval 95%		n=
			Lower bound	Upper bound	
1	Prioritising waiting lists for surgery				
1a	Patients with severe illness are treated first	0,7442	0,7169	0,7714	271
1b	Patients with severe illness are treated first resulting in longer waiting for one in your family	0,7596	0,7329	0,7864	285
1c	Patients with severe illness are treated first, resulting in longer waiting for yourself	0,7600	0,7341	0,7860	266
1d	Those who benefit most from treatment are prioritised	0,5226	0,4877	0,5576	265
1e	Those who benefit most from treatment are prioritised, resulting in longer waiting for one in your family	0,5560	0,5208	0,5912	277
1f	Those who benefit most from treatment are prioritised, resulting in longer waiting for yourself	0,5818	0,5465	0,6171	273
2	Treatment rejection				
2a	Medical doctor denies treatment	0,5009	0,4774	0,5245	539
2b	Medical expertise does not approve the treatment.*	0,5361	0,5117	0,5604	564
2c	Medical expertise and patient organisation agree on not approving the treatment.*	0,5730	0,5478	0,5982	523

Question 1 a-f is used to assess beliefs on health care systems priorities. Question 2 assesses aspects of potential new ways to increase patient adherence. All questions are answered using a 7 point likert scale. Result is based on positive attitude regarding wording in the question

\* Question phrases refer to how the physician explains to the patient why the treatment is rejected.