

SERVIZIO SANITARIO REGIONALE  
EMILIA-ROMAGNA

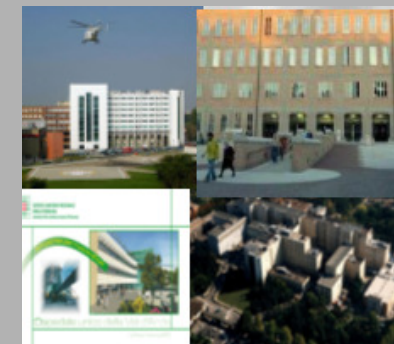
# ***An Italian Multicenter Study for Application of a Diagnostic Algorithm in Autoantibody Testing for Autoimmune Rheumatic Disease***

**C.Bonaguri <sup>1</sup>, A.Melegari<sup>2</sup>, A.Ballabio<sup>3</sup>, P.Terenziani<sup>4</sup>,  
P.P.Dall'Aglio <sup>1</sup>, A.Russo <sup>1</sup>, L.Battistelli <sup>1</sup>, R.Aloe <sup>1</sup>, G.Lippi <sup>1</sup>**

<sup>1</sup> Azienda Osp.Univ PARMA, <sup>2</sup> Azienda Osp.Univ.MODENA,  
<sup>3</sup>Azienda Sanit. PIACENZA, <sup>4</sup>Azienda Osp.REGGIO-EMILIA



***7<sup>th</sup> International Congress on Autoimmunity  
Ljubljana, Slovenia May 5 -9, 2010***



## *Multicenter Study for a Diagnostic Algorithm Application in Autoantibody Testing: Background*

Laboratory role is important because provides useful diagnostic tools in order to improve clinical decision making in the Autoimmune Disease field

In the last years requests for these assays have grown remarkably, partially because laboratory tests inappropriate use. Reducing clinically inappropriate requests is a very important target for Health Services

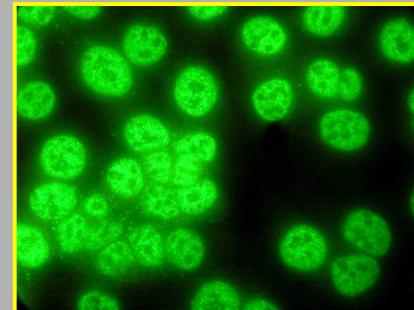
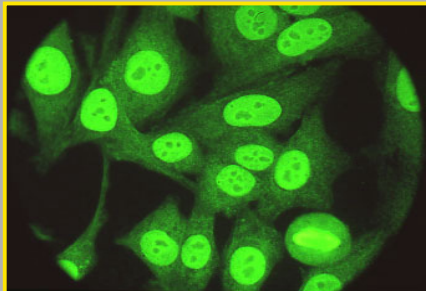
Several guidelines and diagnostic algorithms for autoantibody testing have been proposed by different Authors but there is a lack of data on the application of these diagnostic protocols

## ***Aim of the Study***

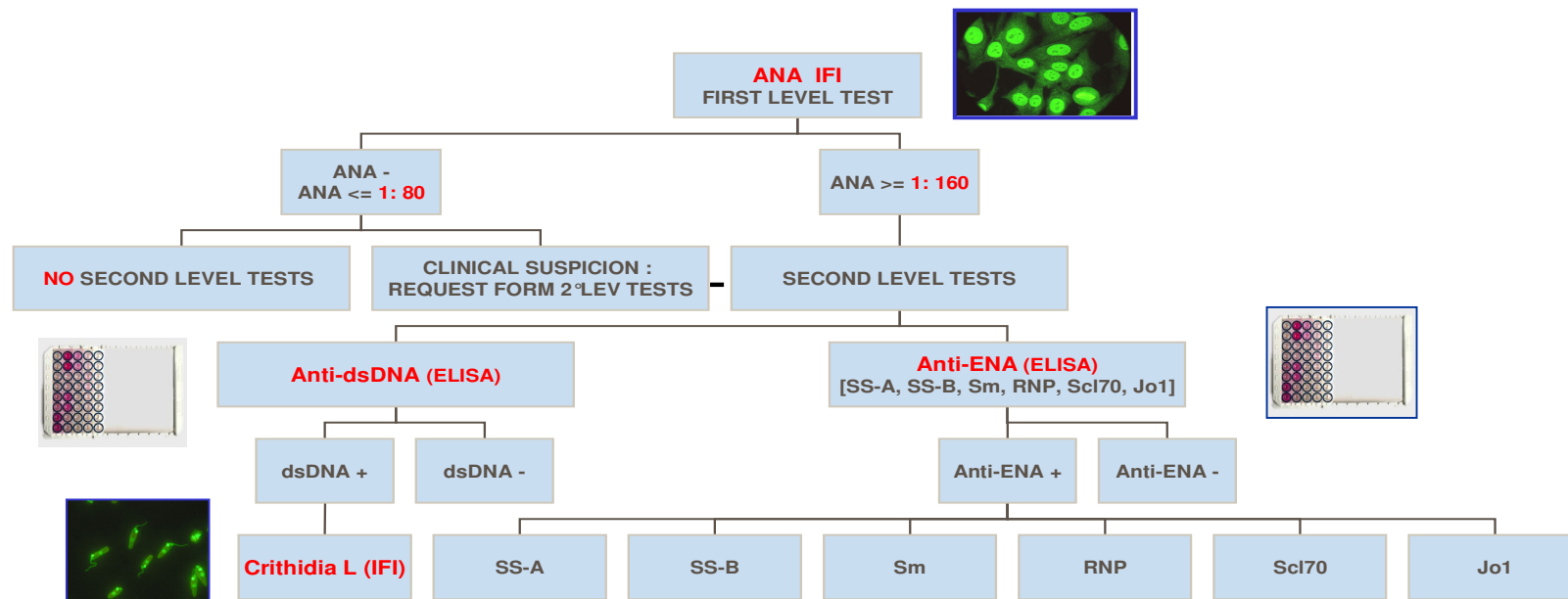
Aim of this study was to implement a guideline for reducing clinically inappropriate test requests of autoantibody testing in a broad geographic area (Parma, Modena, Piacenza, Reggio-Emilia)

This study, started in January 2008 and concluded in December 2009, was supported by a Regional Grant.

It was an observational research aimed to compare the number of tests (ANA, anti-ENA, anti-dsDNA, ) and the percentage of positive test results before and after implementation of the diagnostic algorithm.

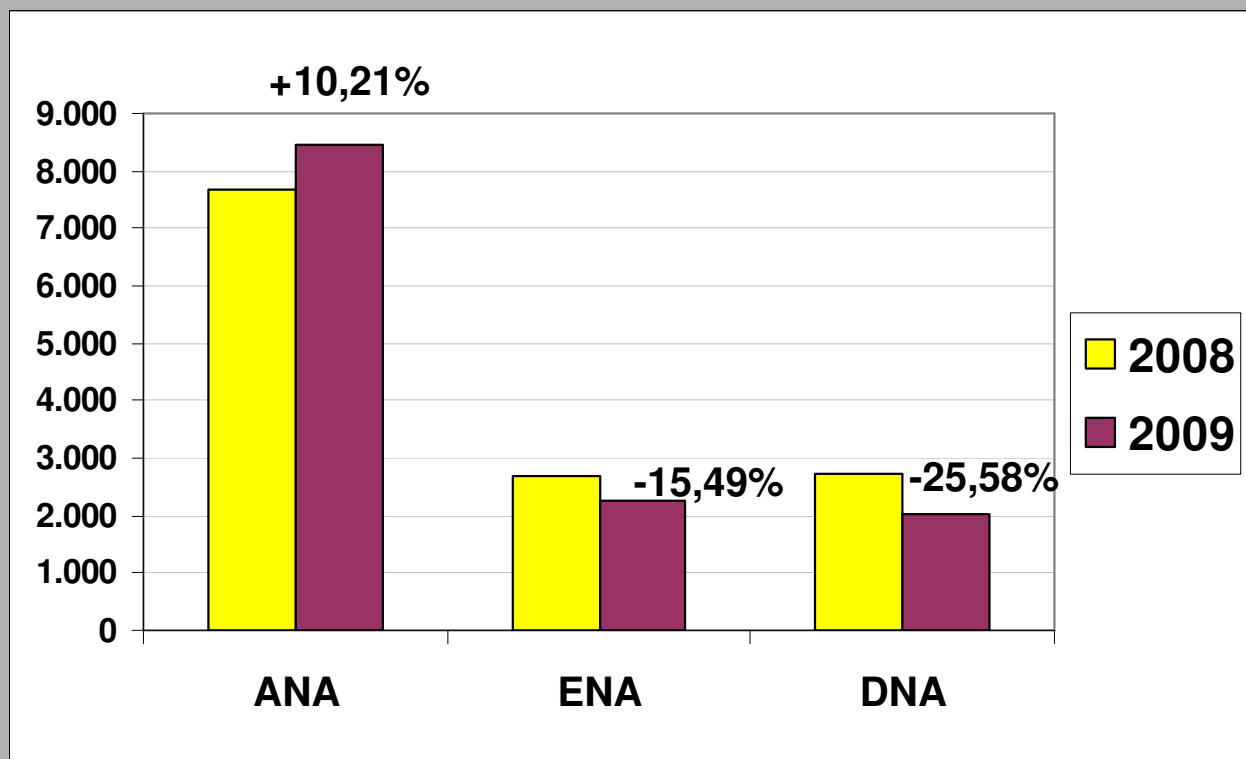


# Flowchart of Diagnostic Algorithm for Autoantibodies testing in Autoimmune Rheumatic Disease



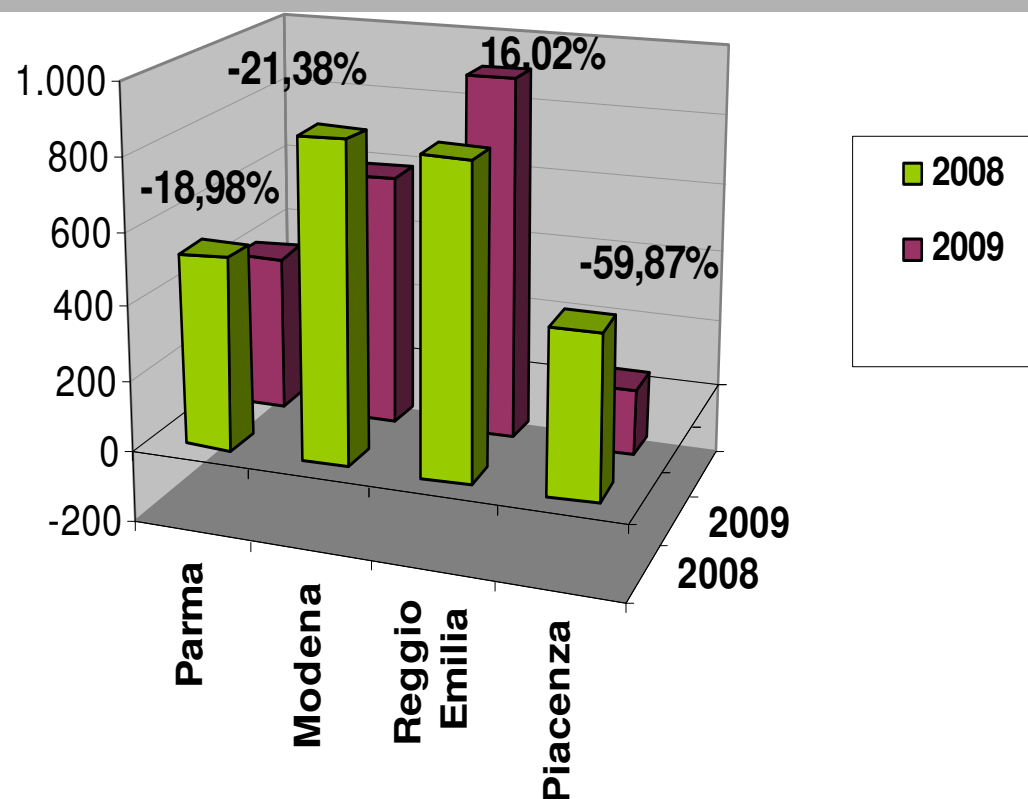
## ANA, ENA, ds DNA test requests in Hospitalized Patients (Overall Centers)

	ANA	ENA	DNA
Jan 1 <sup>st</sup> - Jun 1 <sup>st</sup> 2008 (test n°)	7.662	2.692	2.713
Jan 1 <sup>st</sup> - Jun 1 <sup>st</sup> 2009 (test n°)	8.444	2.275	2.019
	+10,21%	-15,49%	-25,58%



## ENA test requests in Hospitalized Patients in the different Centers

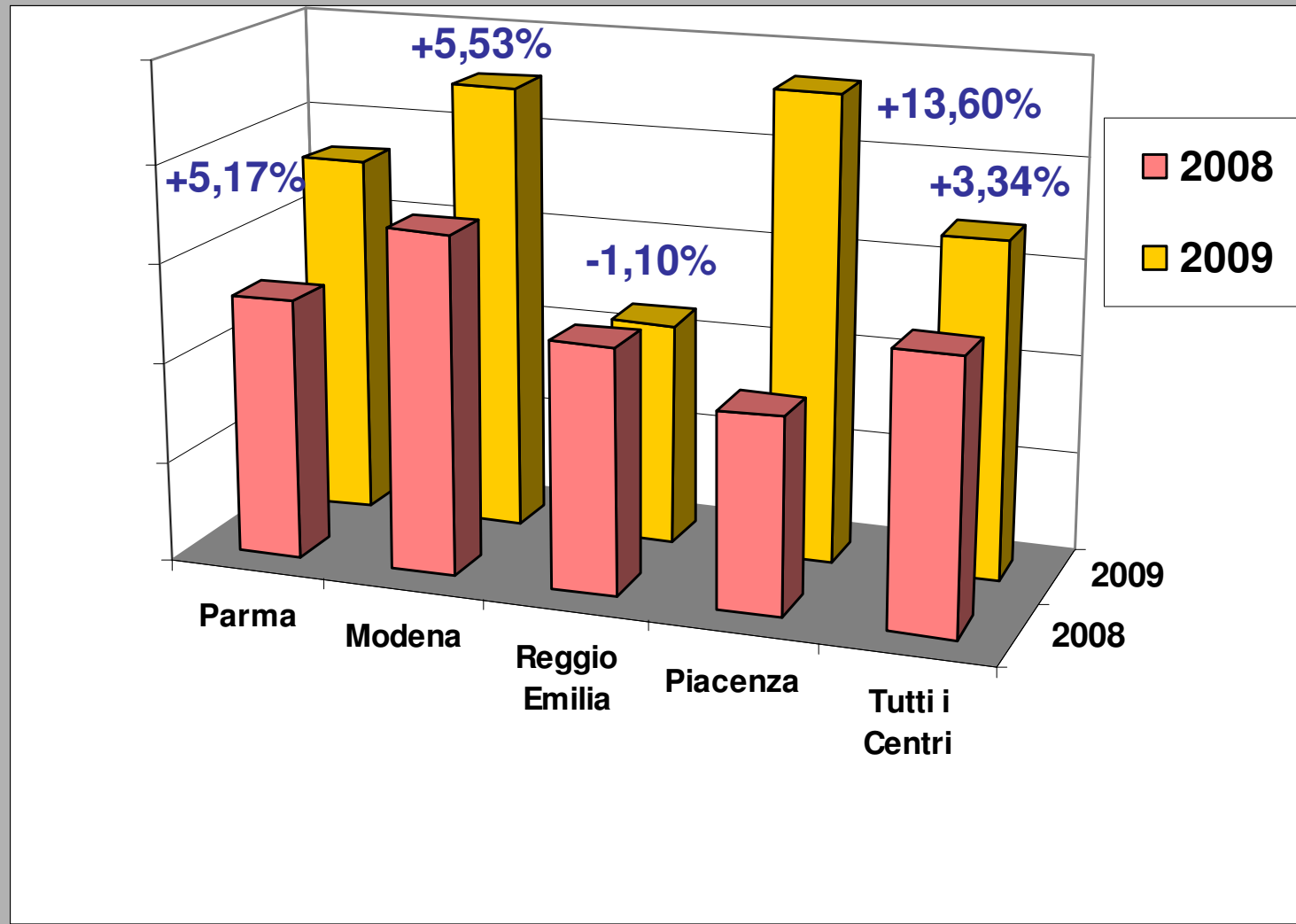
	2008	2009	Delta
Parma	527	427	-18,98%
Modena	870	684	-21,38%
Reggio-E.	849	985	16,02%
Piacenza	446	179	-59,87%
<b>Overall</b>	<b>2.692</b>	<b>2.275</b>	<b>-15,49%</b>



APPROPRIATEZZA  
DELLA RICHIESTA  
NEI DOSAGGI  
AUTOANTICORPALI:  
RISULTATI CONCLUSIVI  
DI UN PROGETTO  
DI AREA VASTA  
PER LA DIAGNOSTICA  
DELLE CONNETTIVITI.

11 febbraio 2010  
ore 8,30-18,00  
Sala Congressi  
Azienda Ospedaliero-Universitaria  
Parma

# % of ENA Positive in Hospitalized Patients



APPROPRIATEZZA  
DELLA RICHIESTA  
NEI DOSAGGI  
AUTOANTICORPALI:  
RISULTATI CONCLUSIVI  
DI UN PROGETTO  
DI AREA VASTA  
PER LA DIAGNOSTICA  
DELLE CONNETTIVITI.

11 febbraio 2010  
ore 8,30-18,00  
Sala Congressi  
Azienda Ospedaliero-Universitaria  
Parma







## Conclusions

- ⌄ *The percentage of second level test positivity is increased both for ENA and dsDNA after diagnostic protocol application*
- ⌄ *The evaluation of local and specific clinical needs increase the feasibility and the application in a wide regional area of a diagnostic protocol*
- ⌄ *Diagnostic algorithm introduction allowed a significant decrease of second level test number*
- ⌄ *Guidelines validation for laboratory diagnosis of Autoimmune Rheumatic Disease can represent a tool for improving patients' outcomes and economic efficiency*
- ⌄ *Efficiency and effectiveness are strongly linked*









PARMIGIANO  
REGGIANO

*Thank you for your kind attention*

