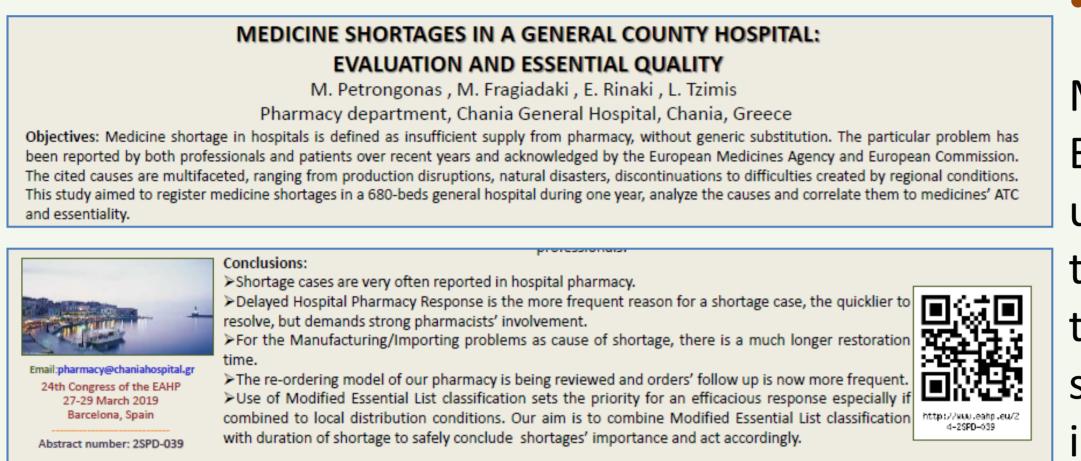
# SOFTWARE TOOL DEVELOPMENT FOR THE ASSISTANCE OF HOSPITAL PHARMACISTS IN MEDICINES' SHORTAGES MANAGEMENT

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#### What was done?

A new software module in Hospital Information System (HIS) for monitoring medicines' shortages (MSs) was conceived by hospital pharmacists (HPs), and it was designed, developed and integrated to the ICT system. This module helps HPs easily track which medicines were totally or partially substituted due to insufficient quantities and gives additional information (such as residual quantity of a medicine on prescription date, on inspection date, pending orders, known shortage) needed for managing MSs. In this tool, MSs and relevant information, such as causes, measures to re-stock and shortage's impact, can be entered, centrally managed and regularly reported.



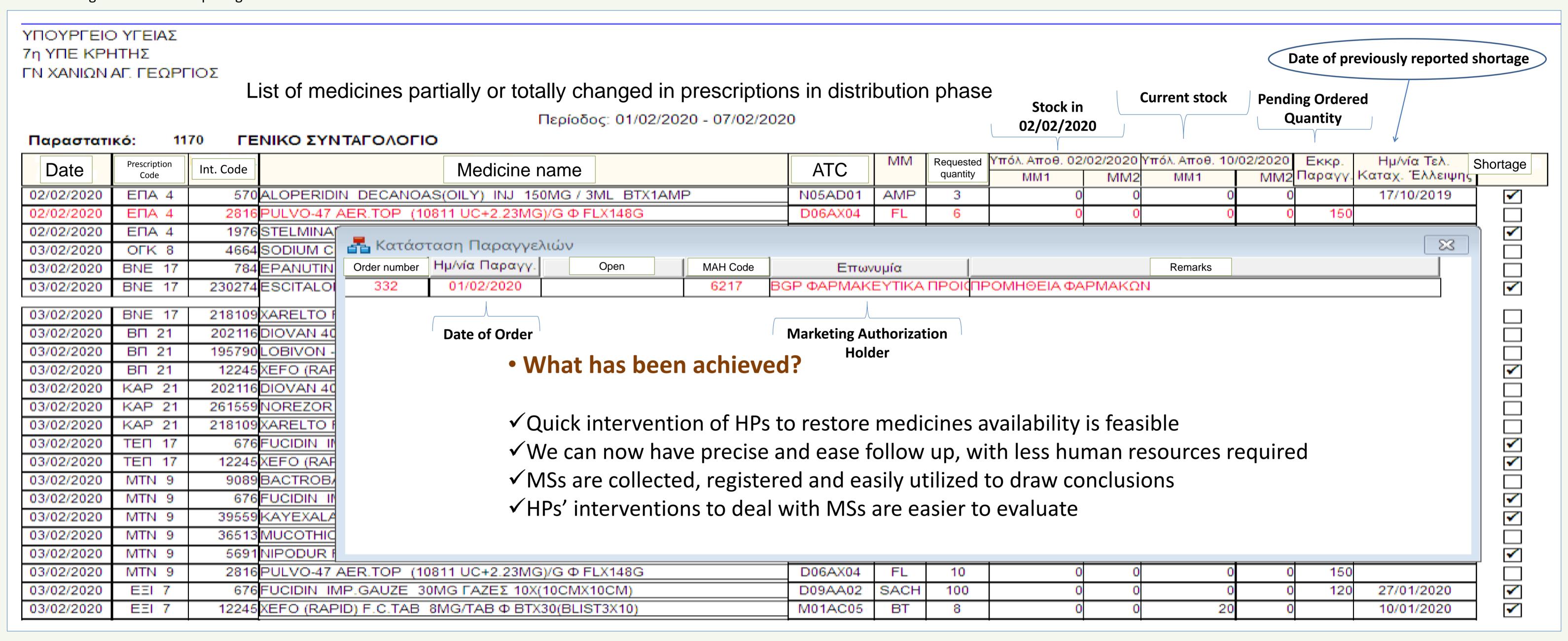
### Why was it done?

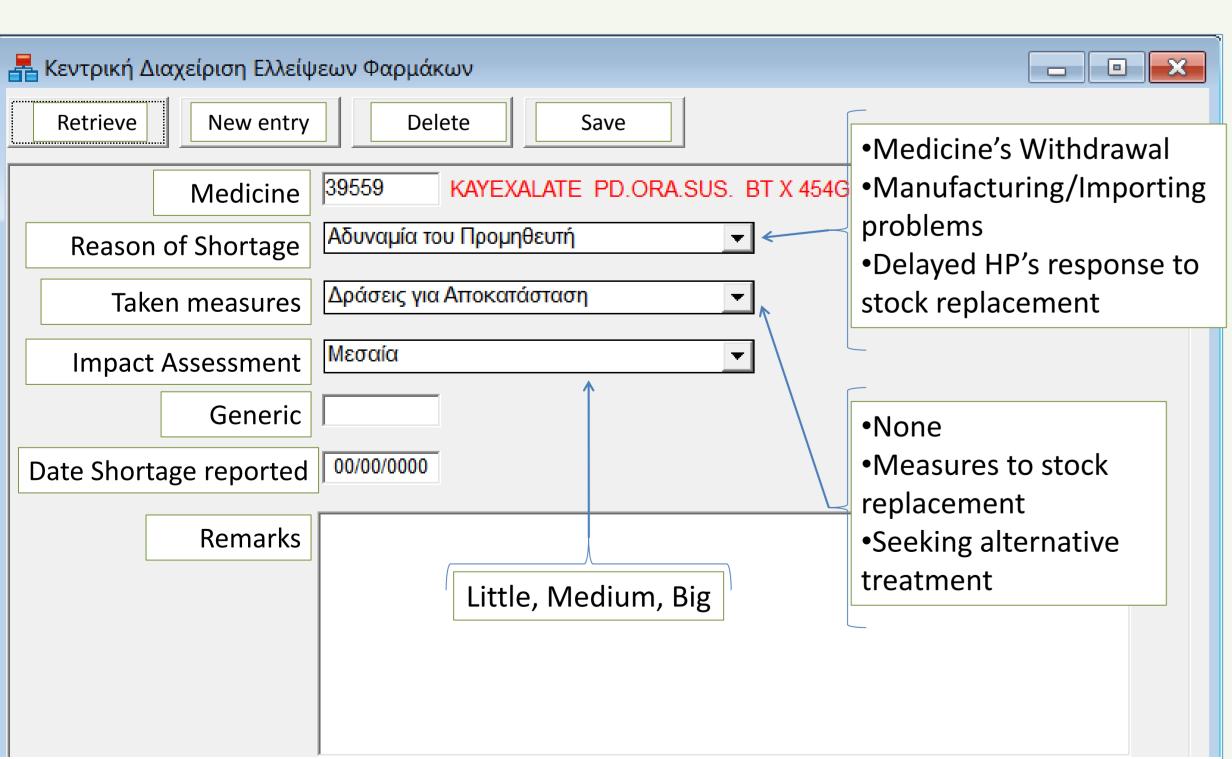
MSs are a frequent problem to our hospital. In a study carried out in 2018 (presented in EAHP Congress in Barcelona 2019), we investigated reported shortages during one year and found that 56% of cases of unsatisfied wards' requests were due to failure of pharmacy's procedures to restore availability. In 70% of these cases, time to re-stock was more than 4 days and strong involvement of HPs in following up and taking measures was required. The purpose of this tool is to bring together all relevant information of shortages aiming to improve hospital pharmacy's response as well as following—up MSs for further investigation or research.

#### • How was it done?

Implementation of the module in ICT system was made in zero cost by ICT service provider\*, following technical specifications designed by HPs. Final product was multi-checked by HPs during development and all technical problems have been resolved accordingly.

\* ORCO Organization & Computing SA



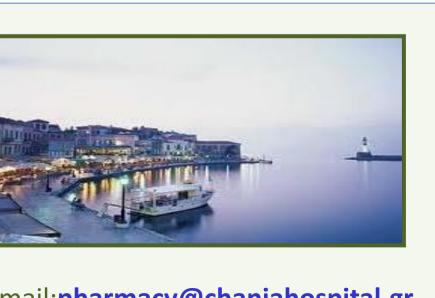


]	7η ΥΠΕ ΚΕ	ΙΟ ΥΓΕΙΑΣ ΡΗΤΗΣ Ν ΑΓ. ΓΕΩΡΓΙΟΣ	List of medicines in confirmed shortage Περίοδος: 01/02/2020 - 10/02/2020					
	Int.Code	Medicine name	ATC	Date of delete/restore	Date of re- availability	Reason of Shortage	Taken measures	Impact Assessment
	7300	ADDAMEL N INJ.SO.INF Φ BTX20AMPX10ML	B05XA31	07/02/2020 12:01:36 (Διαγρ.)	10/02/2020	Αδυναμία Διαδικασιών	Καμία	Μεσαία
	202116	DIOVAN 40MG FC.TAB, BTX14TABS	C09CA03	03/02/2020 12:41:27 (Διαγρ.)	06/02/2020	Αδυναμία Διαδικασιών	Καμία	Μικρή
		DULOXETINE MYLAN GR.CAP 30MG/CAP BTX28 ΚΑΨΆΚΙΑ ΣΕ BLISTER	N06AX21	06/02/2020 10:58:32 (Διαγρ.)		Αδυναμία Διαδικασιών	Καμία	Μικρή
	238199	EPLERIUM F.C.TAB 50MG/TAB BTX30 (ΣΕ BLISTERS PVC/AL) (ΣΕ BLISTERS PVC/AL)	C03DA04	04/02/2020 12:50:42 (Διαγρ.)		Αδυναμία Διαδικασιών	Καμία	Μικρή
		ESCITALOPRAM/ACTAVIS F.C.TAB 10MG/TAB BT X 28	N06AB10	03/02/2020 11:07:38 (Διαγρ.)		Αδυναμία Διαδικασιών	Καμία	Μικρή
	39559	KAYEXALATE PD.ORA.SUS. BT X 454G	V03AE01	03/02/2020 11:15:47 (Διαγρ.)		Αδυναμία του Προμηθευτή	Δράσεις για Αποκατάσταση	Μεσαία
	187	OTRIVIN NAS.SOL 0,1% Φ FLX10ML	R01AA07	06/02/2020 11:35:10 (Διαγρ.)	07/02/2020	Αδυναμία Διαδικασιών	Καμία	Μικρή
		PROPOFOL LIPURO 1% 100ML INJ.EM.IN BOTTLEX100ML	N01AX10	07/02/2020 07:58:03 (Διαγρ.)	07/02/2020	Αδυναμία του Προμηθευτή	Δράσεις για Αποκατάσταση	Μικρή
	3921	RADACEF DR.PD.INJ 1G/VIAL Φ BTX1VIAL+1AMPX3MLSOL (IM/IV)	J01DC11	05/02/2020 07:16:54 (Διαγρ.)	06/02/2020	Αδυναμία Διαδικασιών	Καμία	Μικρή
		SMOFKABIVEN PERIPHERAL INJ.EM.INF 4BAGSX1448 ML	B05BA10	06/02/2020 07:57:04 (Αποκατ/σ	10/02/2020	Αδυναμία Διαδικασιών	Καμία	Μικρή
		SOLU-CORTEF PS.INJ.SOL. 500MG/VIAL BTX1ACT-O-VIAL(4ML)	H02AB09	03/02/2020 13:21:08 (Αποκατ/σ	04/02/2020	Αδυναμία του Προμηθευτή	Δράσεις για Αποκατάσταση	Μικρή
	218109	XARELTO F.C. TAB 15 MG / TAB BTX28 TAB ΣE BLISTERS (PP/ALU)	B01AF01	03/02/2020 11:07:38 (Διαγρ.)	06/02/2020	Αδυναμία Διαδικασιών	Καμία	Μικρή
		XYLANAL GEL.EXT.US 5% W/W BT X 1 TUB X 30 G	D06AX12	06/02/2020 11:35:10 (Αποκατ/σι	07/02/2020	Αδυναμία Διαδικασιών	Καμία	Μικρή
		XYLANAL GEL.EXT.US 5% W/W BT X 1 TUB X 30 G	D06AX12	06/02/2020 11:36:11 (Αποκατ/σι	07/02/2020	Αδυναμία Διαδικασιών	Καμία	Μικρή
	267494	XYLANAL GEL.EXT.US 5% W/W BT X 1 TUB X 30 G	D06AX12	06/02/2020 13:27:01 (Αποκατ/σ	07/02/2020	Αδυναμία Διαδικασιών	Καμία	Μικρή
	251020	ZAVICEFTA PD.C.S.INF (2+0.5)G/VIAL BTX10FLX20ML	J01DD52	07/02/2020 14:14:08 (Διαγρ.)	10/02/2020	Αδυναμία Διαδικασιών	Καμία	Μεσαία



## • What next?

ICT tools' development is very important in facilitating hospital pharmacy's practice, especially when human recourses are restricted. These software modules can be easily incorporated in every HIS. Pharmacists are competent and should have central role in designing such tools. We are planning to evaluate our new MSs management procedure; in a long run, incorporating in this tool a risk assessment algorithm will be an asset.



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