

GALENIC FORMULATIONS FOR OPHTHALMOLOGISTS: NEW FORMULATIONS, PRESCRIBING PATHWAYS AND PATIENT INFORMATION

S. MANZINI¹, F. GRADELLINI¹, C. POLIDORI², G. BORCIANI¹, L. FARES¹

¹AZIENDA UNITÀ SANITARIA LOCALE – IRCCS DI REGGIO EMILIA, HOSPITAL PHARMACY, REGGIO EMILIA, ITALY (corresponding author: federica.gradellini@ausl.re.it).

²UNIVERSITY OF CAMERINO, PHARMACOLOGY, CAMERINO, ITALY.

BACKGROUND and OBJECTIVES


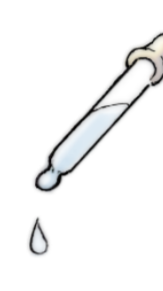

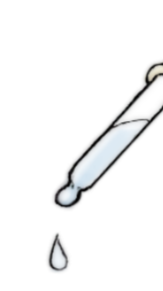
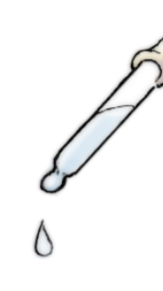
Some ocular pathologies need to be treated with special ocular solutions that are not available on the market as ready formulations, but need to be prepared in the hospital pharmacy.

The objective was to create:

1. an hospital **Ophthalmic Formulary**;
2. an **online format** to be used by hospital ophthalmologists to request the formulations;
3. a **patient information leaflet** that provide information about the product prescribed.

MATERIAL and METHODS

On the basis of the literature, the following preparations were added in the **Ophthalmic Formulary** :

 ANTIBIOTICS Tobramycin 13,5% Vancomycin 25mg/mL	 ANTIMYCOTICS Amphotericin B 1,5 mg/mL Fluconazole 2mg/mL Voriconazole 1% Chlorhexidine 0,02% Chlorhexidine 0,2%	 IMMUNE SUPPRESSORS Cyclosporine A 0,05% Cyclosporine A 1,25% Cyclosporine A 2% Tacrolimus 0,1%	 IMMUNE MODULATORS Interferon 1MUI/mL Interferon 3MUI/mL	 ONCOLOGICALS Mitomycin C 0,04%
---	---	---	--	--

The hospital pharmacy and the computer technician develop an **online format** with obligatory fields that ophthalmologists have to complete to order the drug/s.

The pharmacist redacts a **patient information leaflet** that provide, in a simple way, information about composition, indications, method of administration, contraindications, possible side effects, storage informations and special precautions.

RESULTS and DISCUSSION

In the study period, from 2016 to 2018, the hospital pharmacy compounded 411 eye drops for 68 patients. The table 1 shows the number of patients treated and the response to the treatment.

	ANTIBIOTICS	ANTIMYCOTICS	IMMUNE SUPPRESSORS	IMMUNE MODULATORS	ONCOLOGICALS	TOTAL
POSITIVELY RESPONSE	11	20	10	2	3	46
NEGATIVELY RESPONSE		4	2			6
DID NOT PROVIDE A RESPONSE	1	1	2			4
STILL IN TREATMENT			11	1		12
TOTAL	12	25	25	3	3	68

Table 1: Number of patients treated in the period 2016-2018 and the response to the treatment

The **online format** facilitated the prescription mode and the analysis of the outcomes of the various treatments (Figure 1).

The **patient information leaflet** is attached to each eye drop (Figure 2).

CONCLUSION

Most of the patients responded to the drug treatment positively and all gave positive feedback about the leaflet. The online prescription system streamlines the work of the pharmacist and the ophthalmologist.

REFERENCES

1. Preferred Practice Patterns: Bacterial Keratitis, American Academy of Ophthalmology, 2013;
2. Guidelines for investigation of suspected microbial keratitis, Moorfields Eye Hospital, London, UK, 2013;
3. Trissel'sTM Stability of Compounded Formulations, Lawrence A. Trissel, 5th Edition (2012);
4. Preparación de medicamentos y formulación magistral para oftalmología, José Ma Alonso Herreros (2003);
5. Compounding Today (<https://compoundingtoday.com/>)

ACKNOWLEDGEMENTS

1. Luigi Fontana (MD), Alfonso Iovieno (MD), Antonio Moramarco (MD)
2. Lidia Scalabrini (IT)

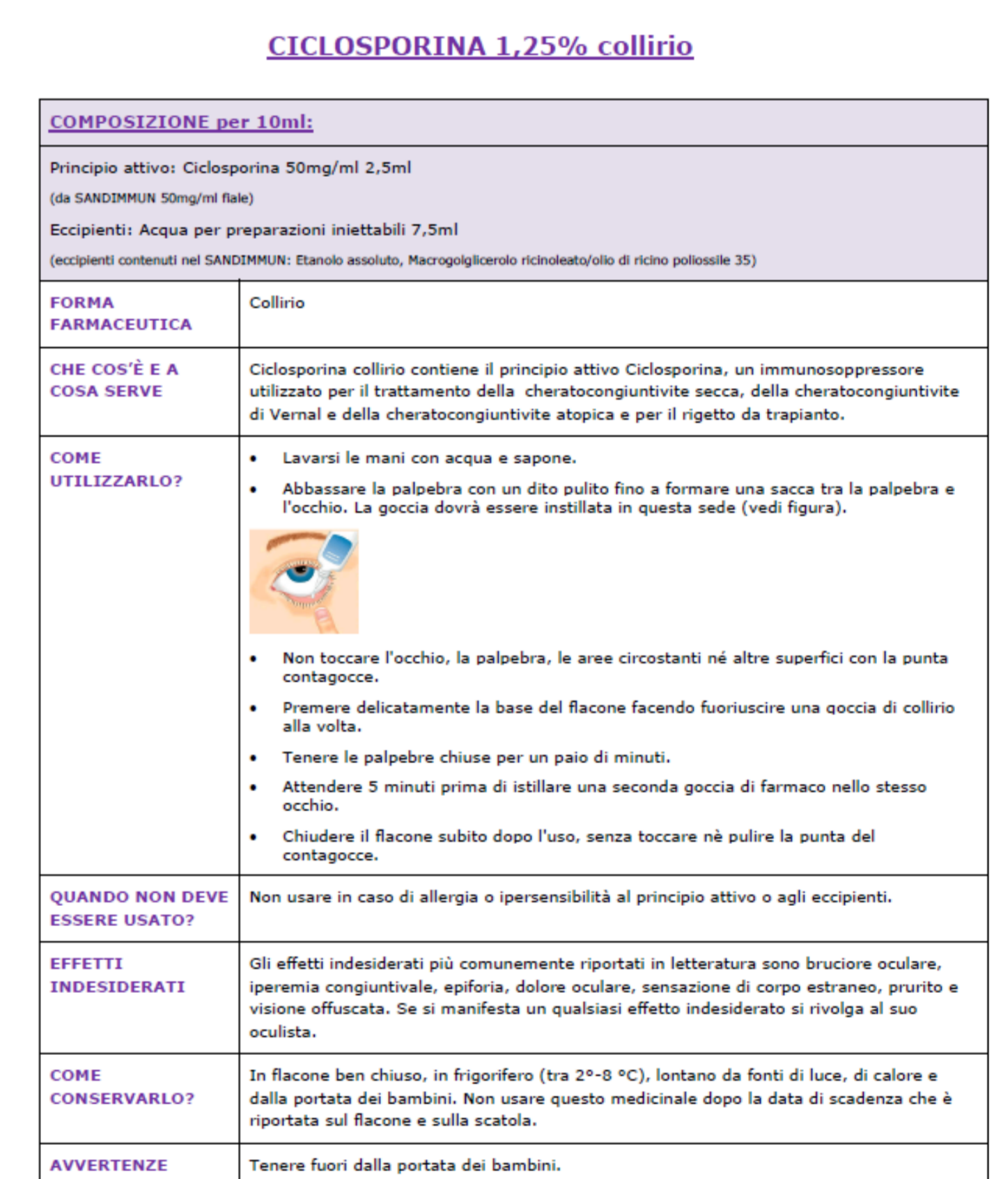


Figure 2: Patient information leaflet

Richiesta di galenici non reperibili in commercio:
CICLOSPORINA A 1,25% COLLIRIO

Composizione per 10 ml:
- SANDIMMUN 50 mg/ml 2,5 ml
- ACQUA P.P.I. 7,5 ml

Nome e Cognome richiedente *
Reperto / C.I.C.*
Nome e Cognome Paziente *
Data di nascita *
Assisto in regime di *
Per la seguente indicazione *
N. flaconi richiesti *
Il farmaco costituisce l'unica alternativa terapeutica *
Dichiarazione
Data per cui è richiesta la preparazione *
Termine copertura terapia
Note

Salva Annulla

Figure 1: Online format

