



Children's Hospital No.2
Ophthalmology Department



RUBEOLA KERATITIS



Dr. Nguyen Thanh Danh
Ophthalmology Department of C.H.2



CONTENTS

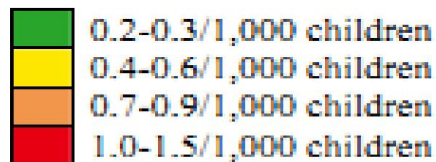
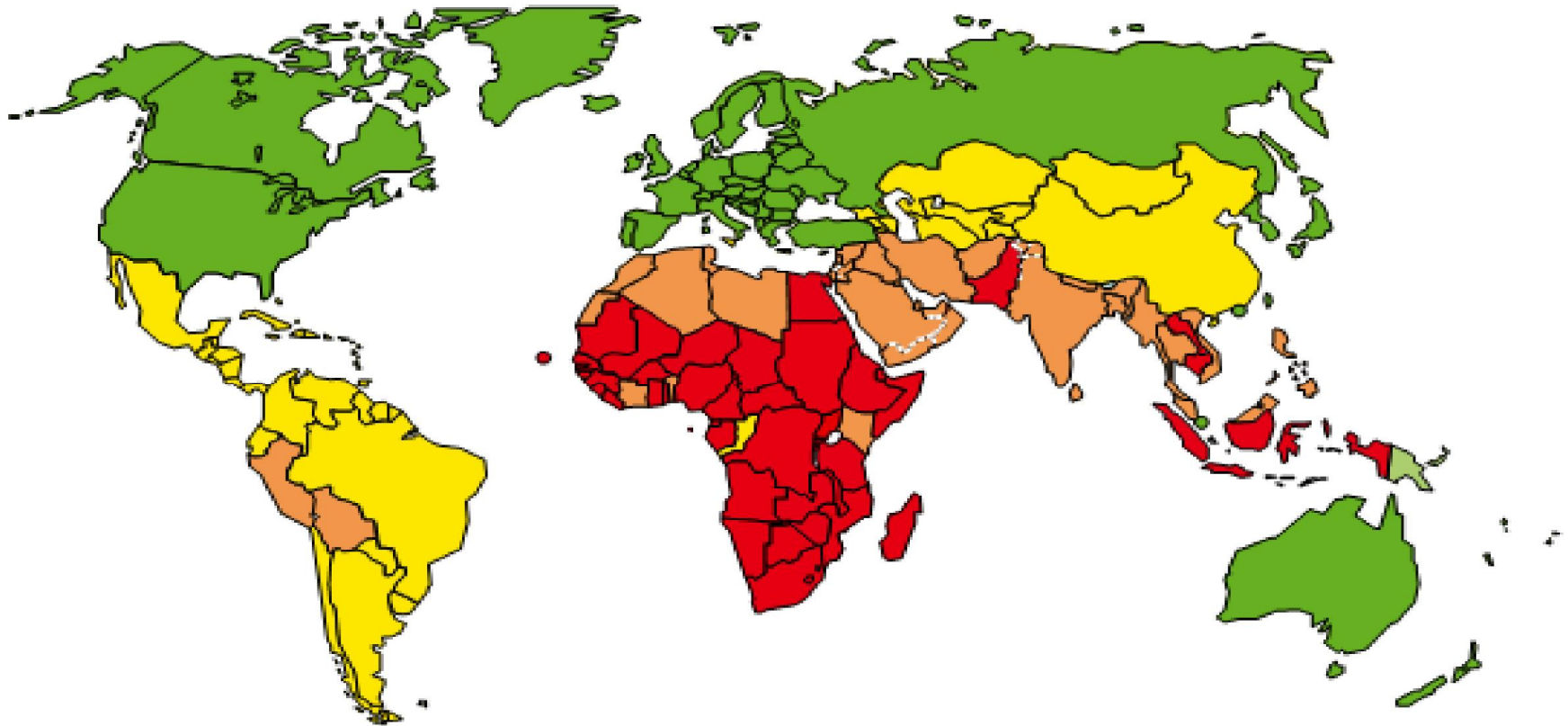
1. Introduction

2. Rubeola Keratitis

3. Research

4. Conclusion

Introduction



15.000 children
38 countries
15 years

Introduction

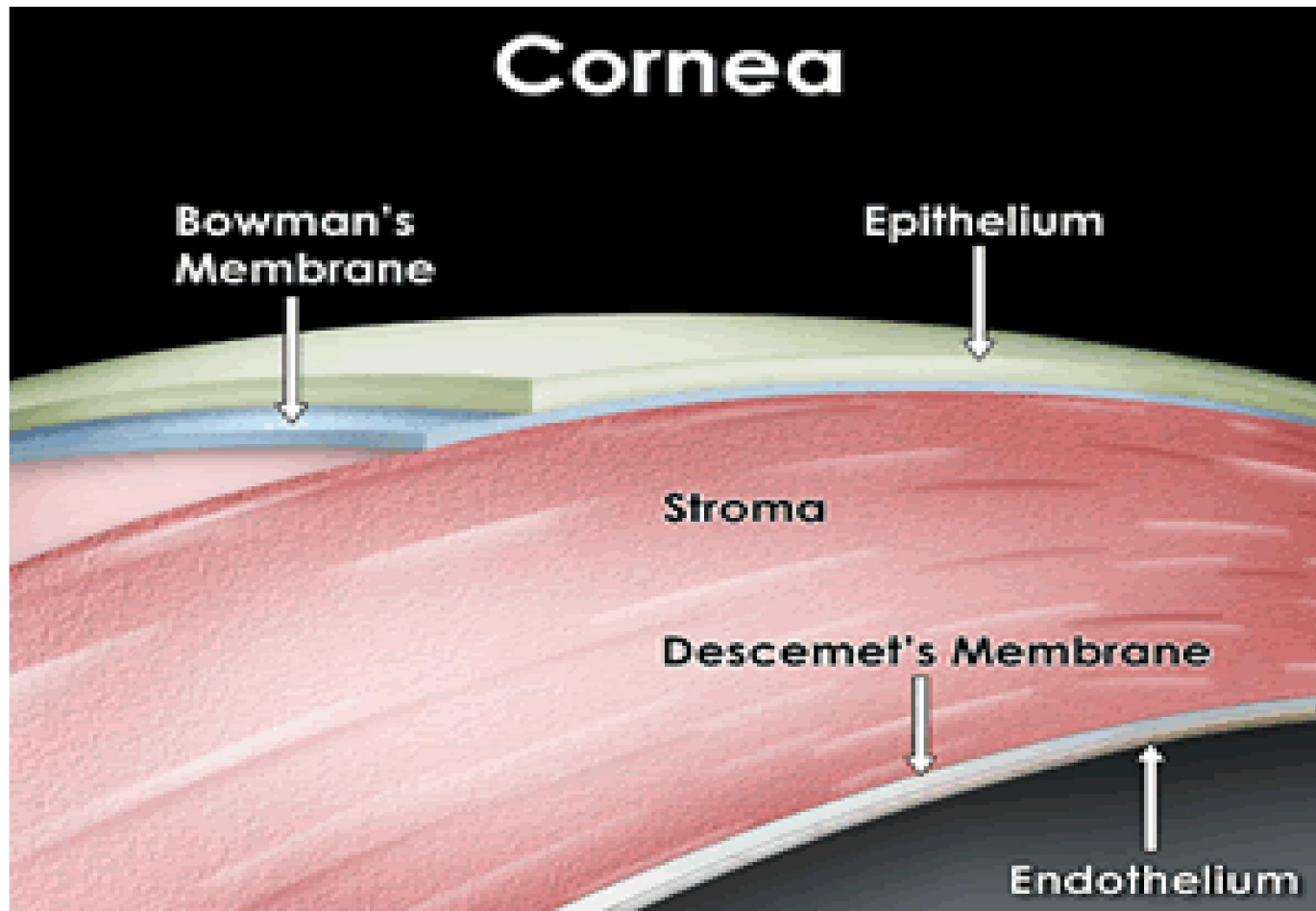
Table 5.1 Estimates of the proportion of children who are blind, by anatomical site and World Bank region. *EME* Established Market Economies, *MEC* Middle East Crescent, *FSE* Former Socialist Economies, *OAI* Other Asia and Islands, *LAC* Latin America and Caribbean, *SSA* sub-Saharan Africa

WB region	EME	FSE	LAC	MEC	China	India	OAI	SSA	ALL	ALL
No blind	50,000	40,000	100,000	190,000	210,000	270,000	220,000	320,000	1,400,000	
	Richest region (%)						Poorest region (%)		Number	Percentage
Retina	25.0	44.3	46.4	42.4	24.9	16.7	15.8	20.0	353,000	25.2
Cornea	1.0	2.3	8.4	5.8	4.3	24.6	24.3	36.2	265,400	19.0
Whole globe	10.0	12.0	11.0	16.0	25.4	33.3	16.5	8.8	258,900	18.5
Lens	8.0	10.8	7.5	16.7	18.9	9.7	27.4	10.0	205,400	14.7
Optic nerve	25.0	14.8	11.7	7.4	13.6	6.1	7.5	9.6	136,700	9.8
Glaucoma	1.0	2.8	8.3	6.4	9.0	2.4	4.6	6.2	77,600	5.5
Other	28.0	8.0	4.4	2.6	2.3	3.0	1.5	4.8	58,200	4.2
Uvea	2.0	5.3	2.3	2.7	1.5	4.3	2.3	4.5	44,800	3.2
Total	100	100	100	100	100	100	100	100	1,400,000	100

Compiled from a database held by C. Gilbert at the International Centre for Eye Health, LSHTM

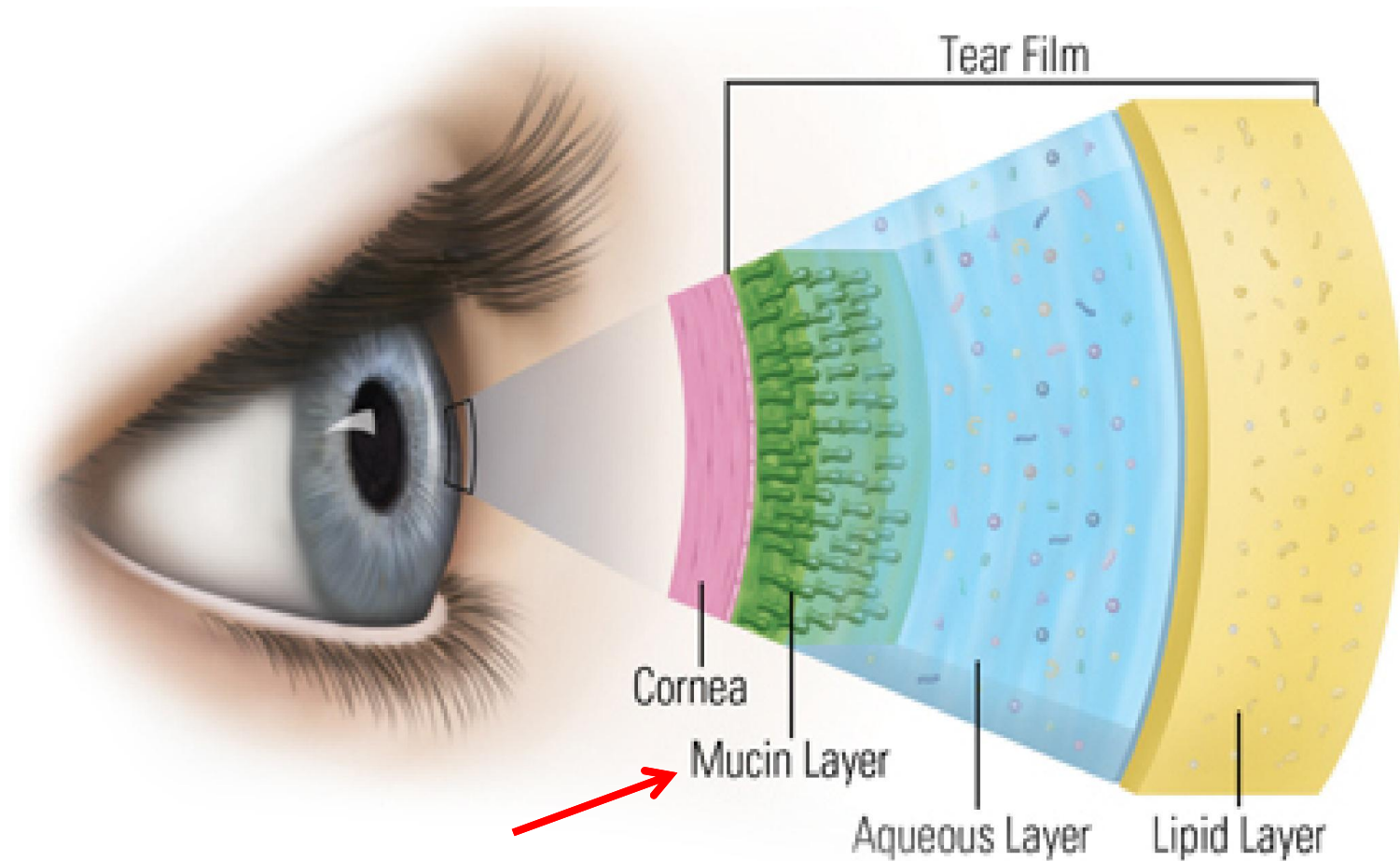
Rubeola Keratitis

❖ Anatomy



Rubeola Keratitis

❖ Physiology: Tear film



Rubeola Keratitis

❖ **Physiology: Vitamin A**

- Rhodopsin, tế bào que của võng mạc
- Tiết bã nhờn, tạo phim nước mắt
- Biệt hóa biểu mô, lành sẹo
- Tăng cường miễn dịch

❖ **Vitamin A deficiency**

- Giảm cung cấp
 - Giảm hấp thu
 - Tăng sử dụng
 - Tăng thải trừ
-

Rubeola Keratitis

❖ Signs: Conjunctivitis



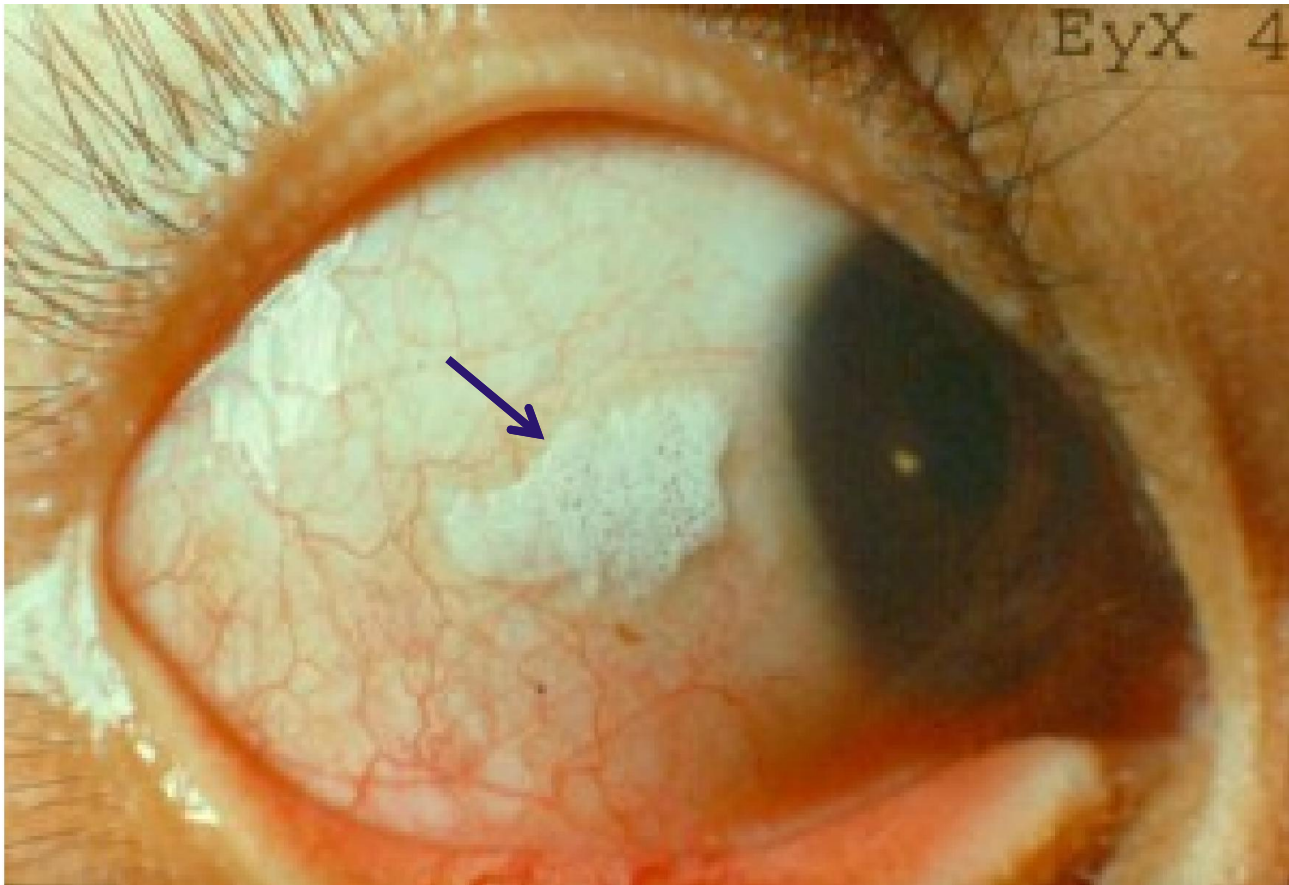
Rubeola Keratitis

❖ **Signs: Conjunctival hemorrhages**



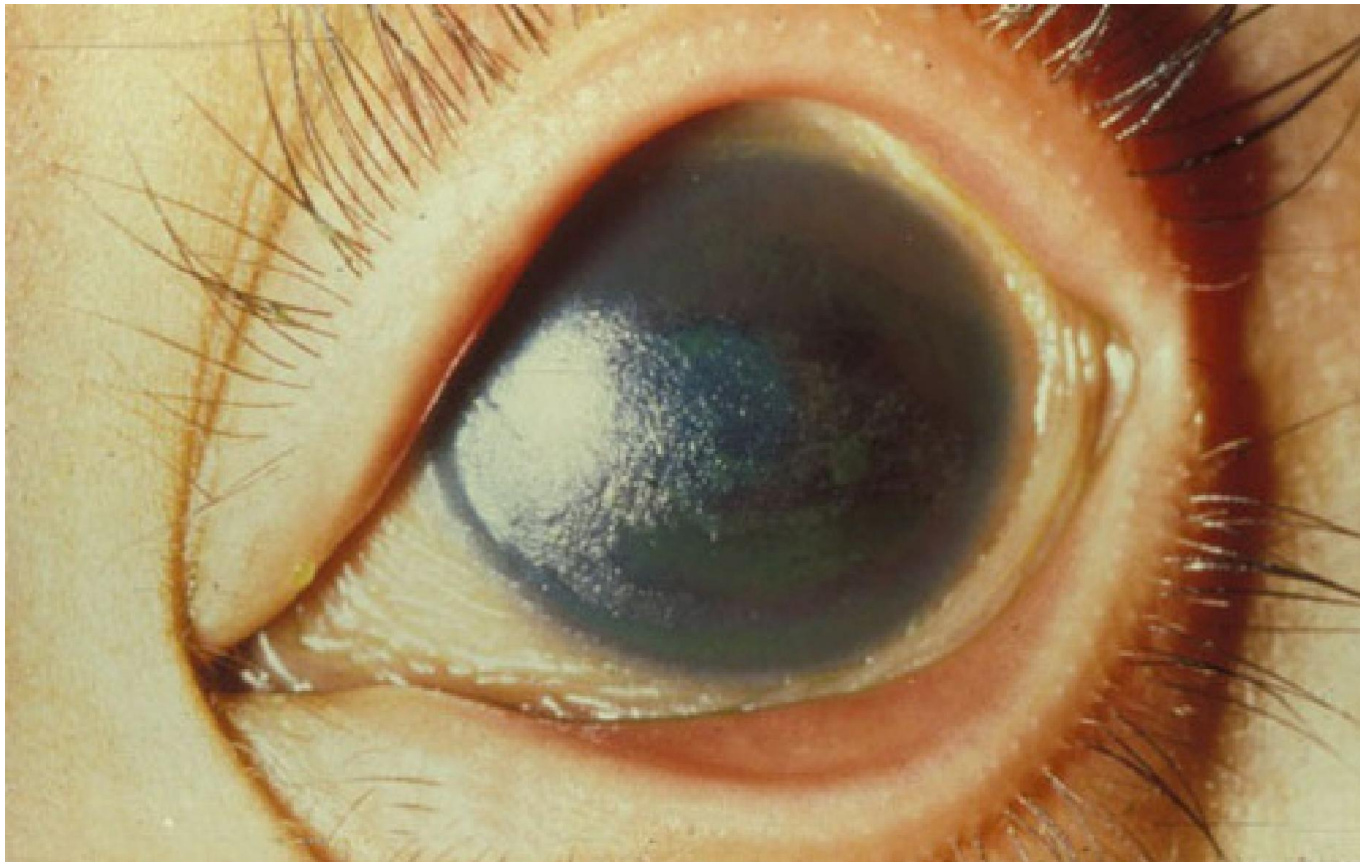
Rubeola Keratitis

❖ Signs: Bitot's spots



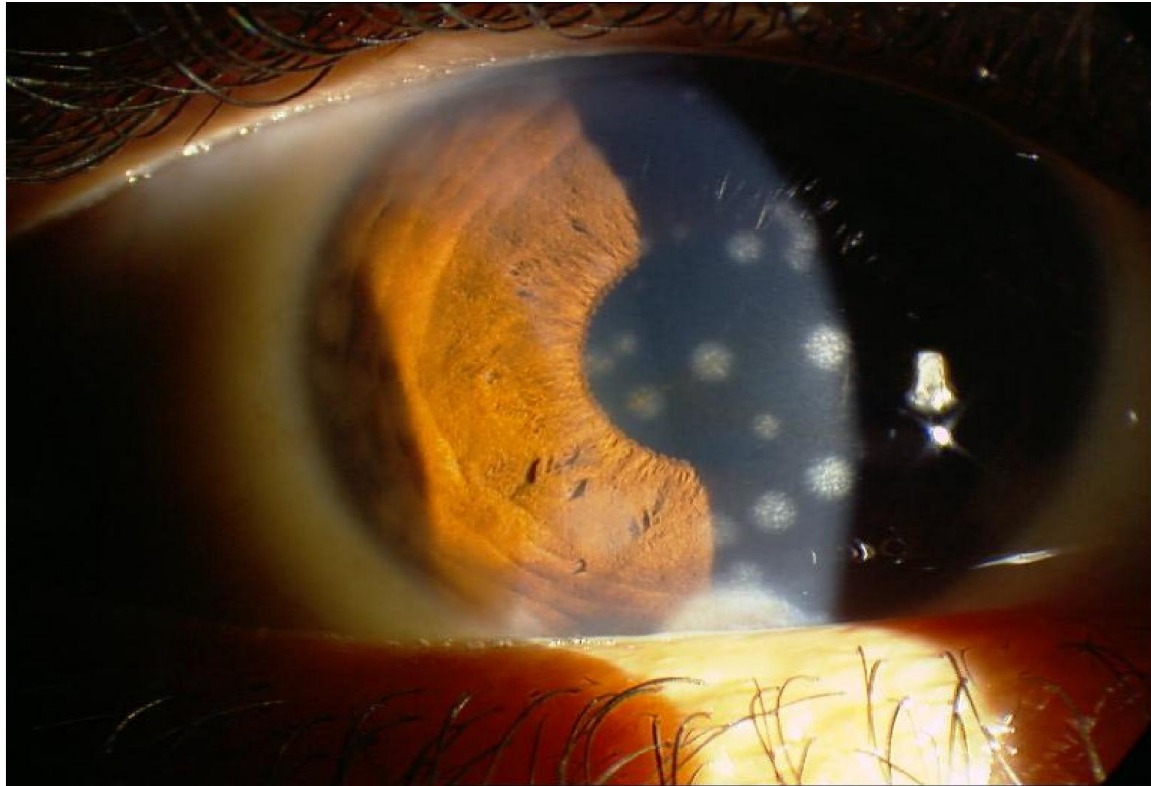
Rubeola Keratitis

❖ Signs: Xerophthalmia



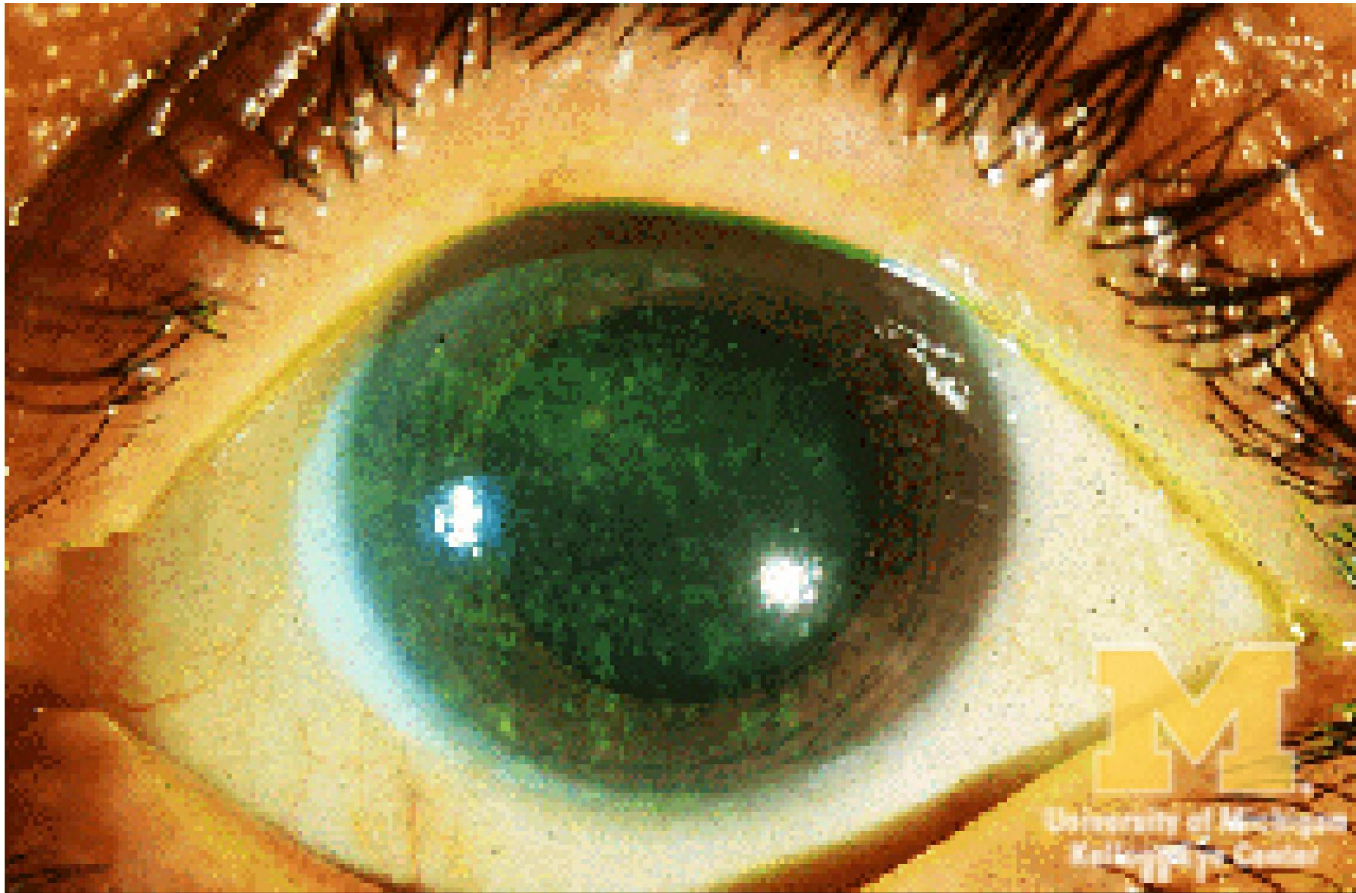
Rubeola Keratitis

- ❖ **Signs: Superficial punctate corneal epithelial**



Rubeola Keratitis

❖ Signs: Keratitis



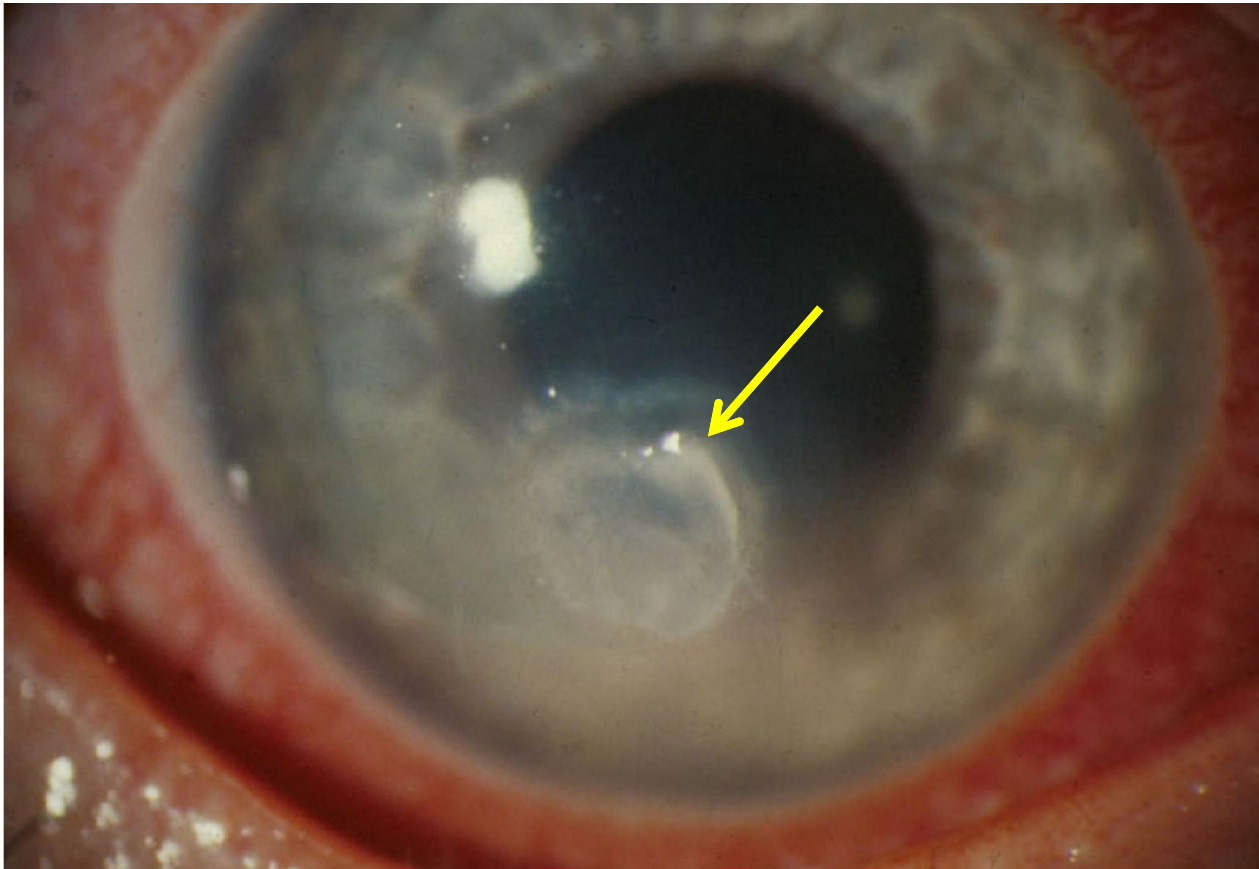
Rubeola Keratitis

❖ Signs: Corneal ulceration



Rubeola Keratitis

❖ Signs: Corneal scarring

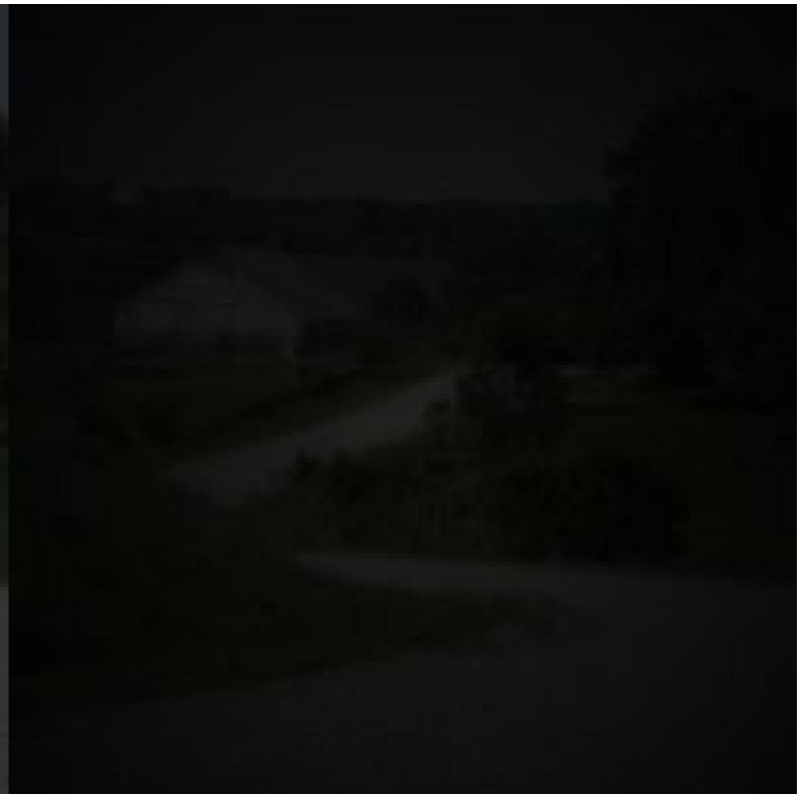


Rubeola Keratitis

❖ Night blindness



Normal Vision



Night Blindness

Research

❖ **MEDLINE, 2000 Mar; PMID 10806435**

- 61 measles, < 15 y.o
 - 29.5% in both eyes.
 - 65.6% had measles conjunctivitis.
 - 22.9% had subconjunctival hemorrhages.
 - 57.4% had superficial punctate corneal epithelial.
 - 8.2% had corneal ulceration.
-

Research

❖ **Cochrane Database of Systematic Reviews – December 8, 2010**

- MEDLINE (1950 – 2010)
 - Global Health (1973 – 2010)
 - EMBASE (1980 – 2010)
 - Latin American and Caribbean Health Sciences (LILACS)
 - African Index Medicus (4/2010)
 - Meta-Register of Controlled Trials
 - Cochran Central Register of Controlled Trials
-

Research

- ❖ **43 trials enrolling**
 - ❖ **215.633 children under 5 y.o**
 - ❖ **Vitamin A supplementation (VAS):**
 - 100.000 UI : 6 – 12 months
 - 200.000 UI : 13 – 60 months
 - 1st – 2nd – 14th day
-

Research

❖ Result: Vitamin A supplementation

	Reduce	Relative Risk (RR)	Confidence Interval (CI)
Mortality	24%	0.50	95%
Diarrhea		0.85	95%
Vomiting		2.75	95%
Complication		0.76	95%

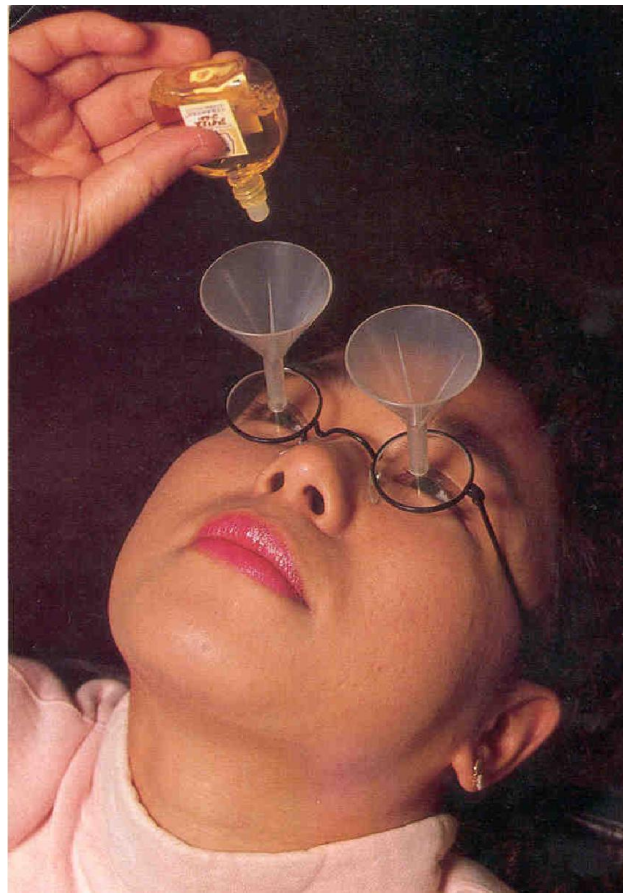
CONCLUSION

1. VITAMIN A



CONCLUSION

2. NOT use eye drops CORTICOID



CONCLUSION

3. EYE EXAMINATION



References



1. Allen Foster, Alfred Sommer (1987), "Corneal ulceration, measles and childhood blindness in Tanzania"; *British Journal of Ophthalmology*, 1987, 71, 331-343.
2. Clark Gilbert (2012), "Worldwide Causes of Blindness in Children"; *Pediatric Ophthalmology – Current Thought and Practical Guide*, 46-60.
3. Clive E West (2000), "Vitamin A and Measles", *Nutrition Reviews*, Vol 58, No.2, 46-54.
4. Goergios P Pavlopoulos (2008), "Rubeola keratitis: a photographic of corneal lesions", PubMed, PMID 10831097.
5. Kayikcioglu O (2000), "Ocular funding in measles epidemic among young adults", PubMed, PMID 10806435.
6. Reddy V (1992), "Relationship between measles, malnutrition and blindness: a prospective study in Indian children"; *American Journal Clinical Nutrition*, 146, 924-930.
7. Pediatric Eye Disease Investigator Group (2008), "Primary Treatment of Rubeola Karatitis in Children Younger than 5 Years". *Ophthalmology*, 115 (3), pp.577-583.

THANK YOU !

