

# \* Diabetic Eye Screening & Ophthalmology Interface

Inayat Khan

Clinical Lead NHS Hillingdon DESP &

Consultant Ophthalmologist Hillingdon Hospital NHS  
Foundation Trust

# \*Main Objectives of my talk

- \*An overview of the Diabetic Eye Screening Processes
- \*Diabetic Retina Pathways
- \*The Challenges ahead for Ophthalmology Services
- \*Short Quiz

# \* DESP ESSENTIAL COMPONENTS

- \* DESP Administration Team
- \* Screening / Grading Team
- \* Referral & Booking Teams/Systems
- \* Treatment & FU (Hospital Eye Service)
- \* OPDR (Monitoring)
- \* QA (Internal & External)
- \* Information Systems for management







# HILLINGDON DESP

# OPTIMIZE V2



# \* THE ANNUAL SCREENING PROCESS

VISUAL ACUITY



PUPILS DILATATION



RETINAL PHOTOGRAPHY



GRADING OF RETINAL IMAGES



ADMIN, REFERRAL & REPORTING





# \* GRADING

## PRIMARY GRADING



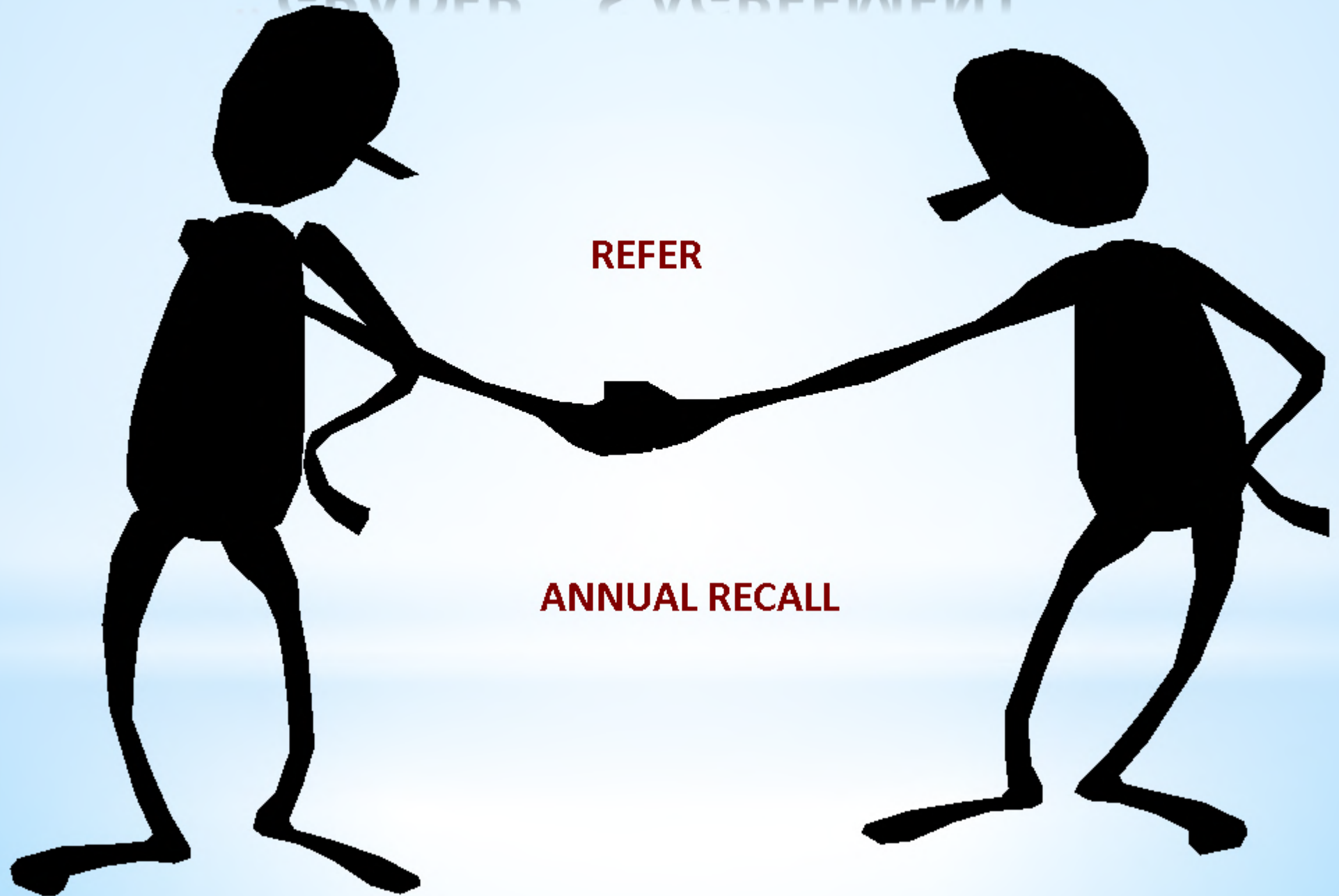
ALL IMAGES

## SECONDARY GRADING



IMAGES WITH DISEASE & 10% OF  
NORMALS FOR QA

# \* GRADER' S AGREEMENT



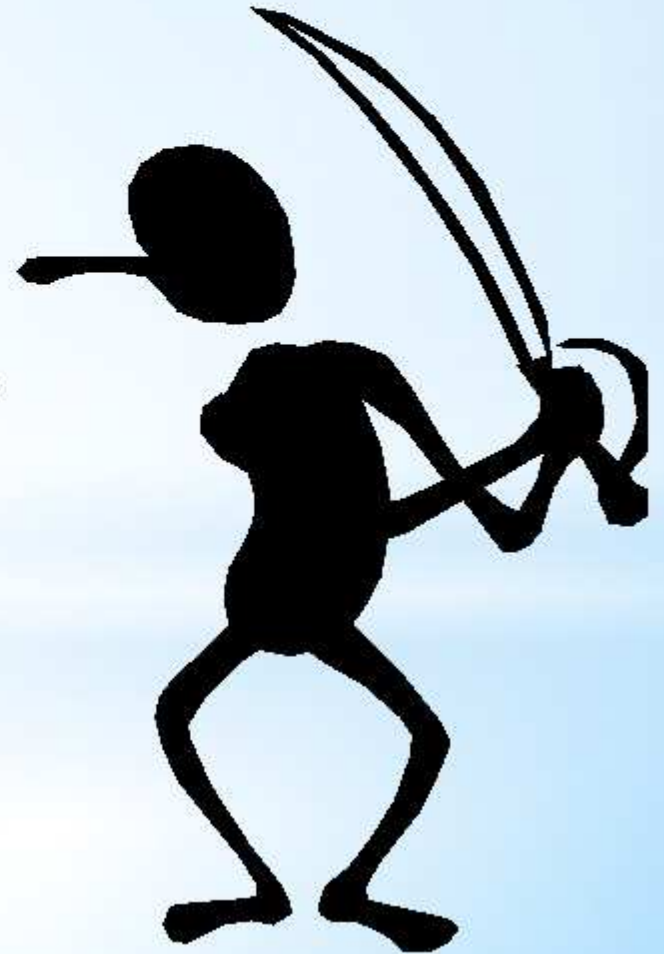
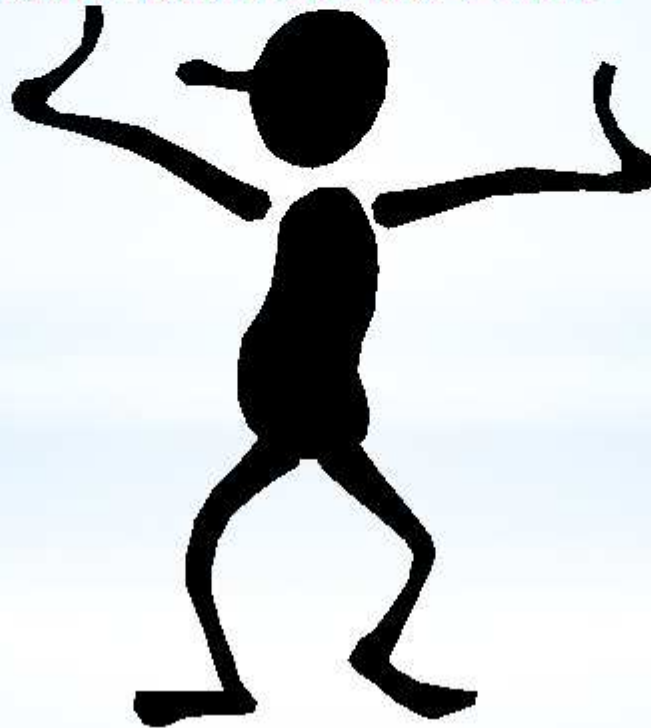
REFER

ANNUAL RECALL

# \* GRADER'S DISAGREEMENT



ARBITRATION GRADING





# \*Ophthalmic Photographic Review (OPDR)

- HES to / from OPDR
- DESP to / from OPDR
- Diabetic Preg in OPDR
- OCT or No OCT
- HES or Community



ADMIN & FAILSAFE

# \* THE UNGRADABLES



**SLITLAMP BIOMICROSCOPY  
DEDICATED CLINIC**

**Pathway 2: full disease grading**

Retinal screener screening more than 1000  
people with diabetes per year



First full disease grade

[DESS](#)

[HOSPITAL](#)



**Pathway 2: full disease grading**  
Retinal screener screening more than 1000  
people with diabetes per year

First full disease grade

**R3 ± P**  
**Urgent Referral**

Hospital eye service

DESS

**HOSPITAL**

**Pathway 2: full disease grading**  
Retinal screener screening more than 1000 people with diabetes per year



90% of Normals  
R0

First full disease grade

R3 ± P  
Urgent Referral



Annual rescreen

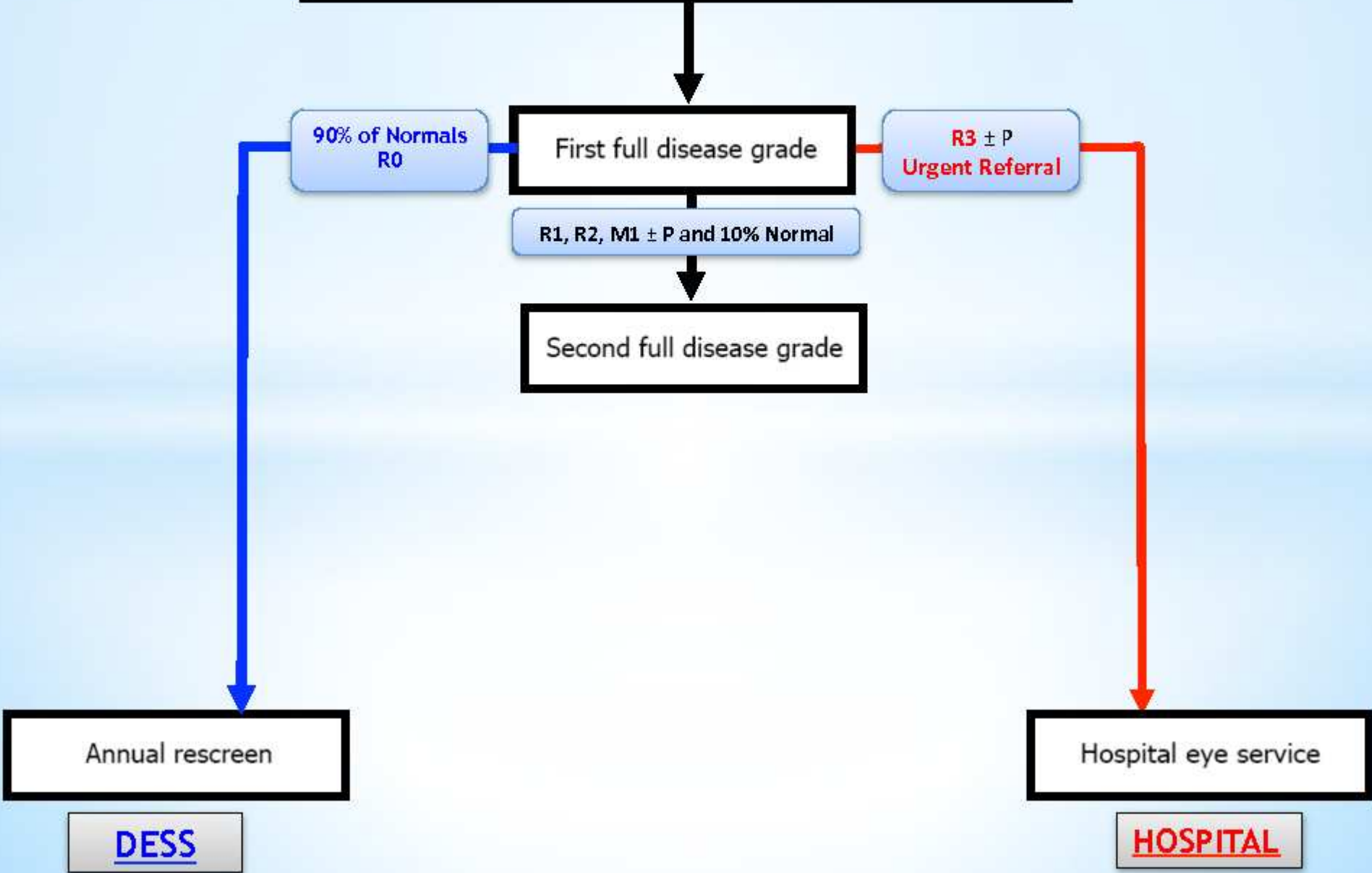
DESS



Hospital eye service

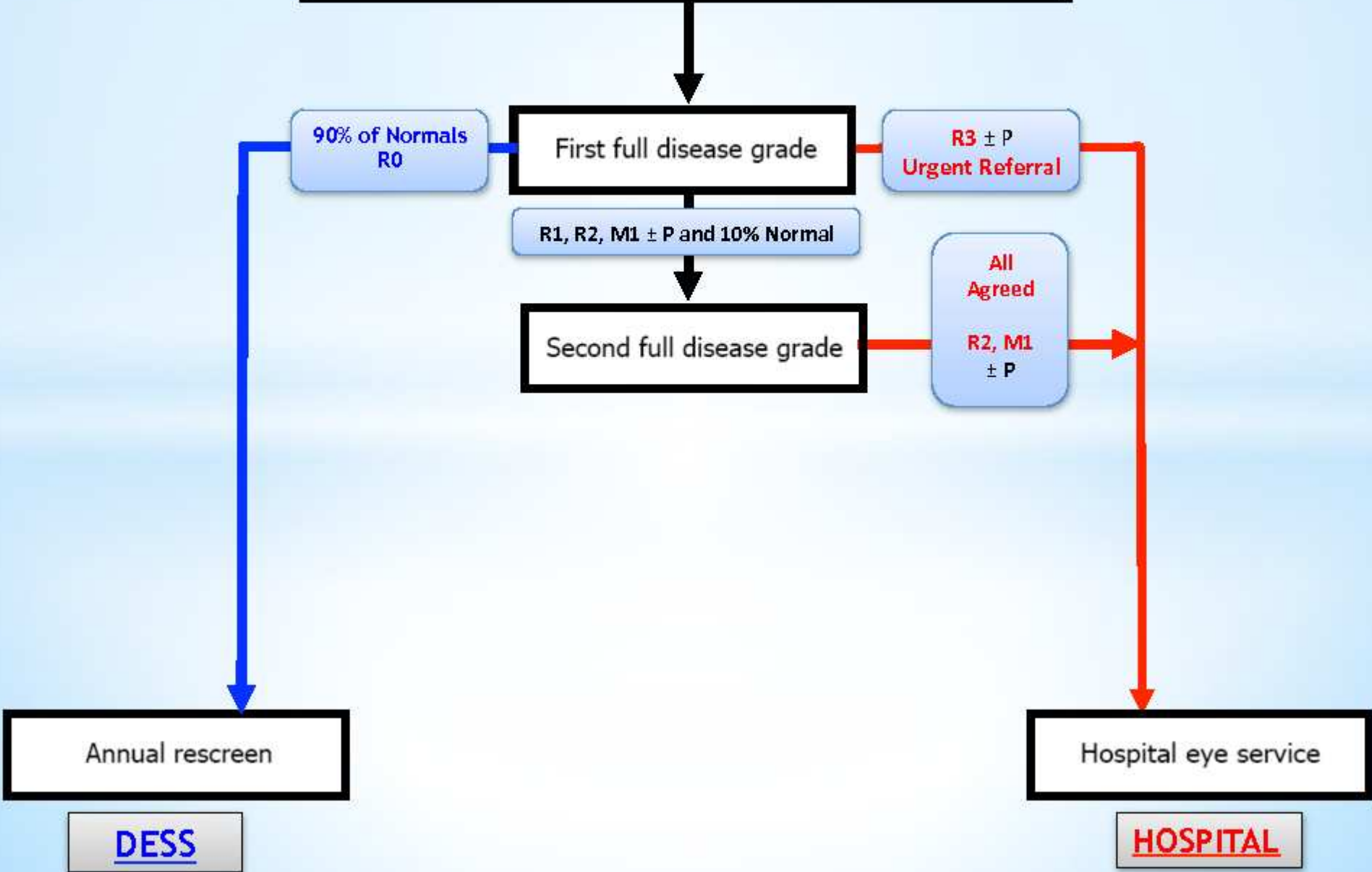
HOSPITAL

**Pathway 2: full disease grading**  
Retinal screener screening more than 1000 people with diabetes per year

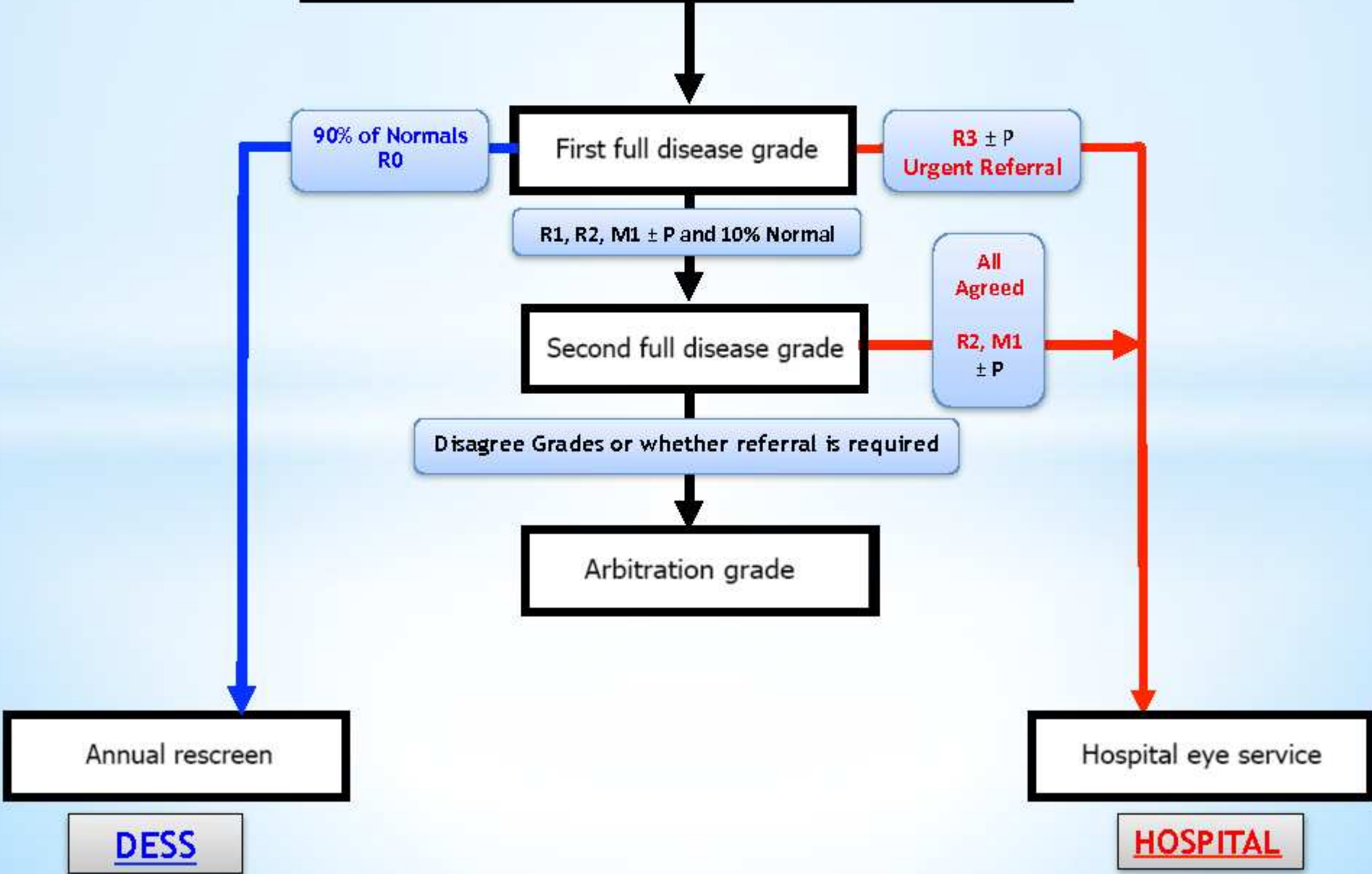




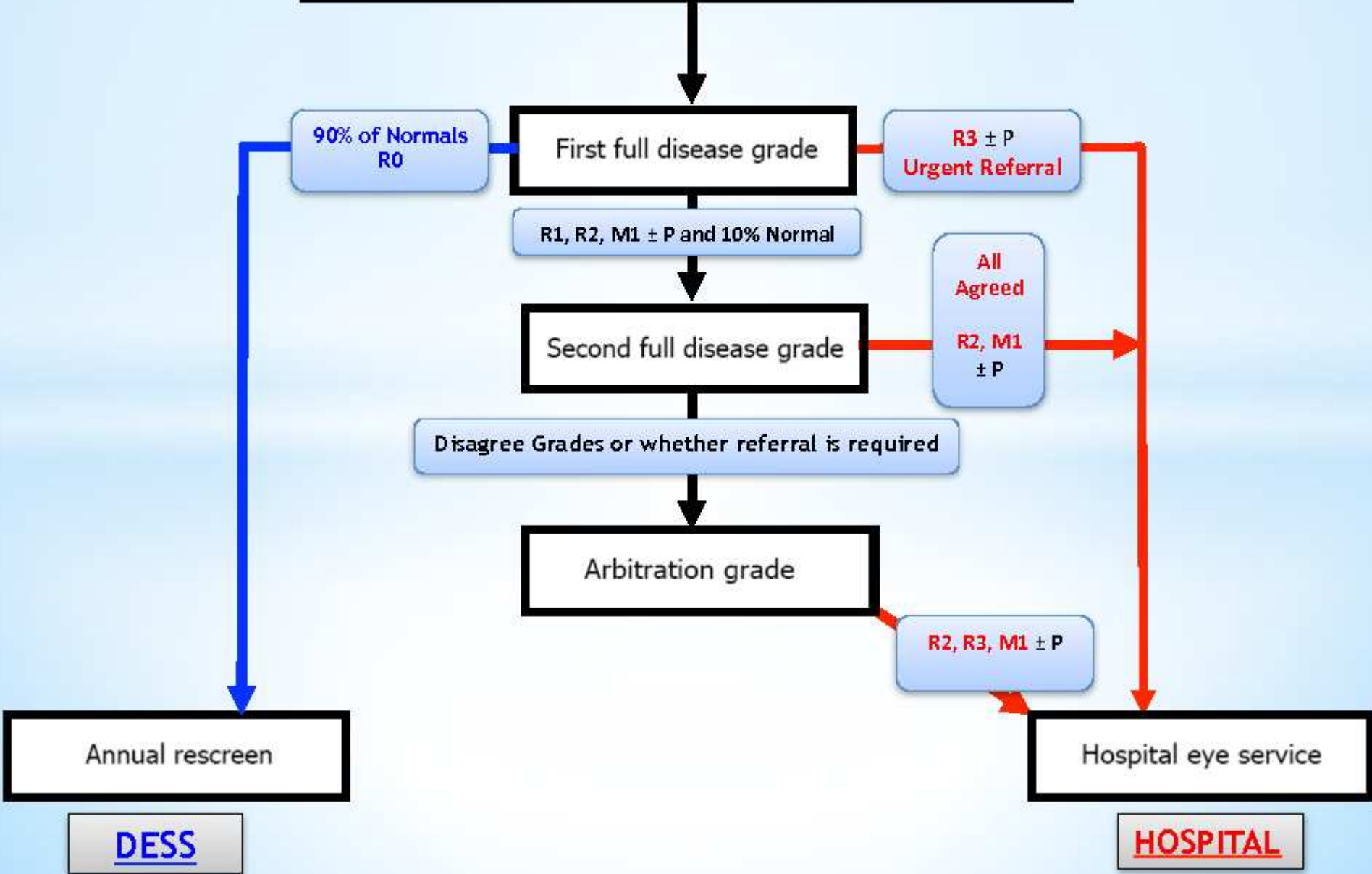
**Pathway 2: full disease grading**  
Retinal screener screening more than 1000 people with diabetes per year



**Pathway 2: full disease grading**  
Retinal screener screening more than 1000 people with diabetes per year

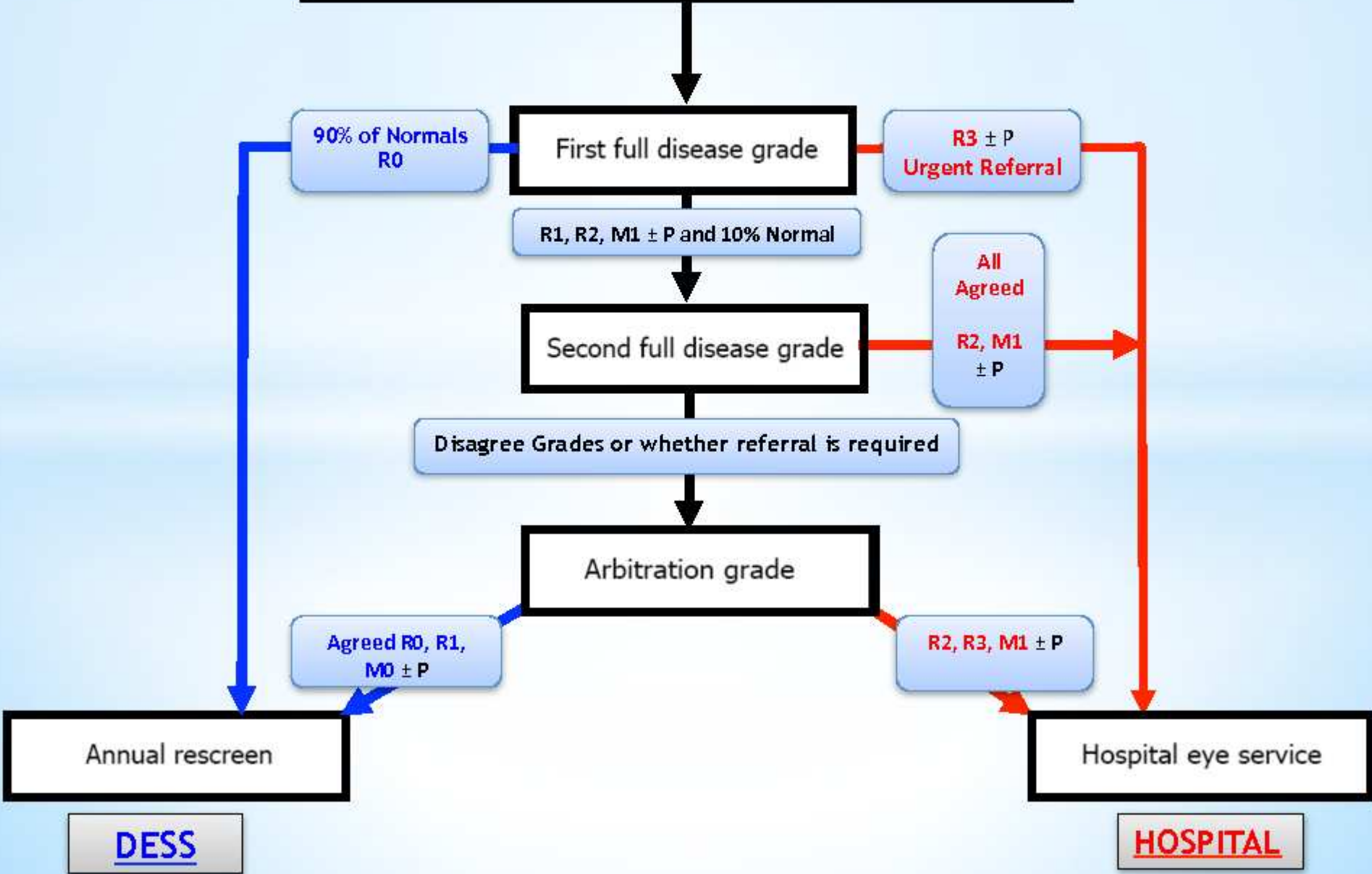


**Pathway 2: full disease grading**  
Retinal screener screening more than 1000 people with diabetes per year





**Pathway 2: full disease grading**  
Retinal screener screening more than 1000 people with diabetes per year



**Pathway 2: full disease grading**  
Retinal screener screening more than 1000 people with diabetes per year

90% of Normals  
R0

First full disease grade

R1, R2, M1 ± P and 10% Normal

R3 ± P  
Urgent Referral

Second full disease grade

All Agreed  
R3  
R2,  
M1 ± P

Disagree Grades or whether referral is required

Arbitration grade

Agreed R0, R1,  
M0 ± P

R2, R3, M1 ± P

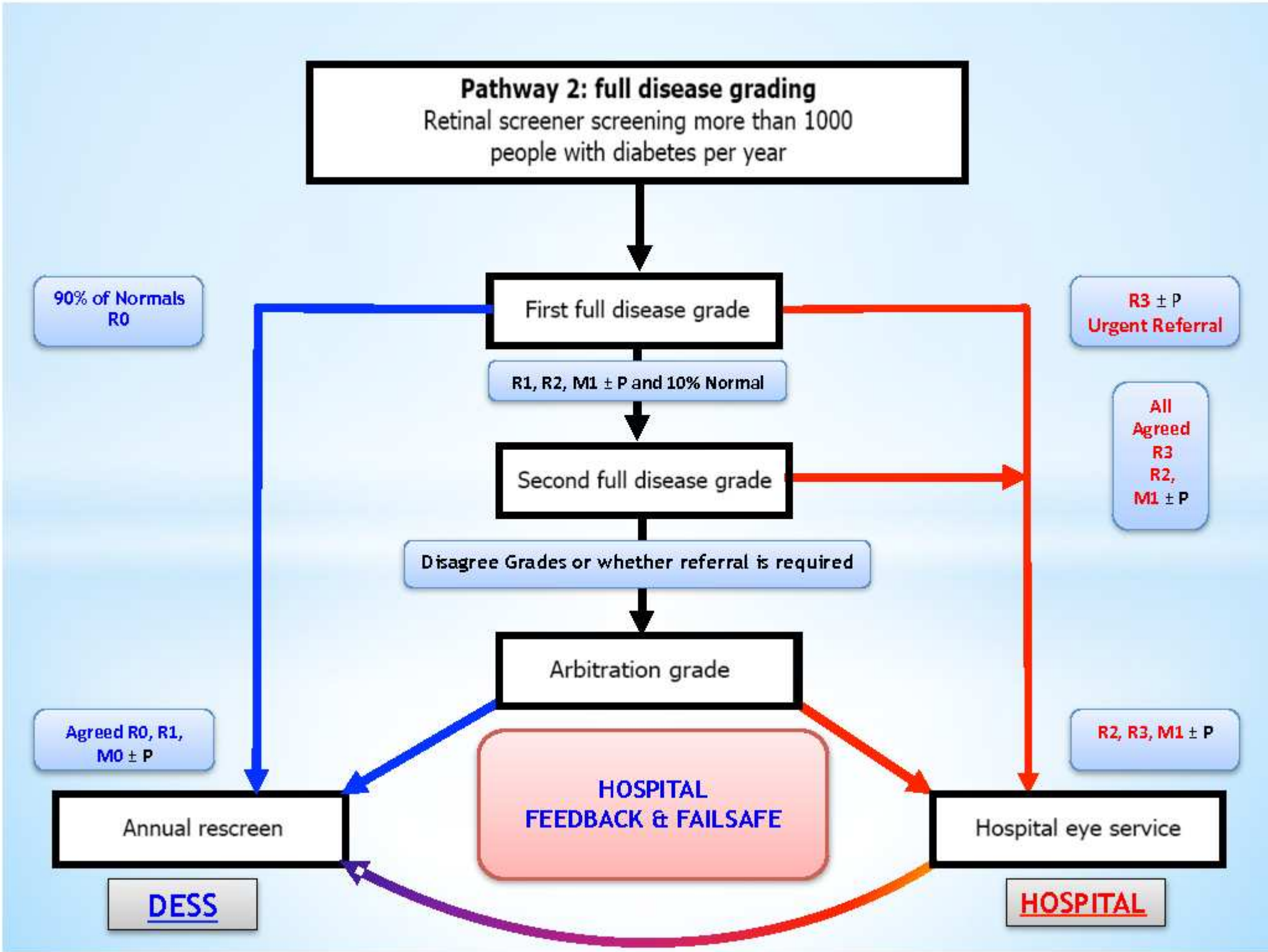
**HOSPITAL  
FEEDBACK & FAILSAFE**

Annual rescreen

Hospital eye service

DESS

HOSPITAL



## Pathway 2: full disease grading

Retinal screener screening more than 1000 people with diabetes per year

ADMIN

ADMIN

First full disease grade

R1, R2, M1 ± P and 10% Normal

Second full disease grade

Disagree Grades or whether referral is required

Arbitration grade

90% of Normals  
R0

R3A ± P  
Urgent Referral

All Agreed  
R3A  
R2,  
M1 ± P

R2, R3A, M1 ± P

Agreed R0, R1,  
M0 ± P

Referral Outcome Grade

Annual rescreen

Hospital eye service

R3s, Stable R2, M1

DRSS

FAILSAFE

OPDR

FAILSAFE

HOSPITAL



**TEAM WORK**

Public Health

Primary Care

DESS

**TEAM WORK**

**TEAM WORK**

**THANK  
YOU**

Hospital Eye Service

Diabetic Services

**TEAM WORK**