

**F**ast-track

**A**ssessment,

**S**creening &

**T**reatment pathway for

**E**nhanced vestibular

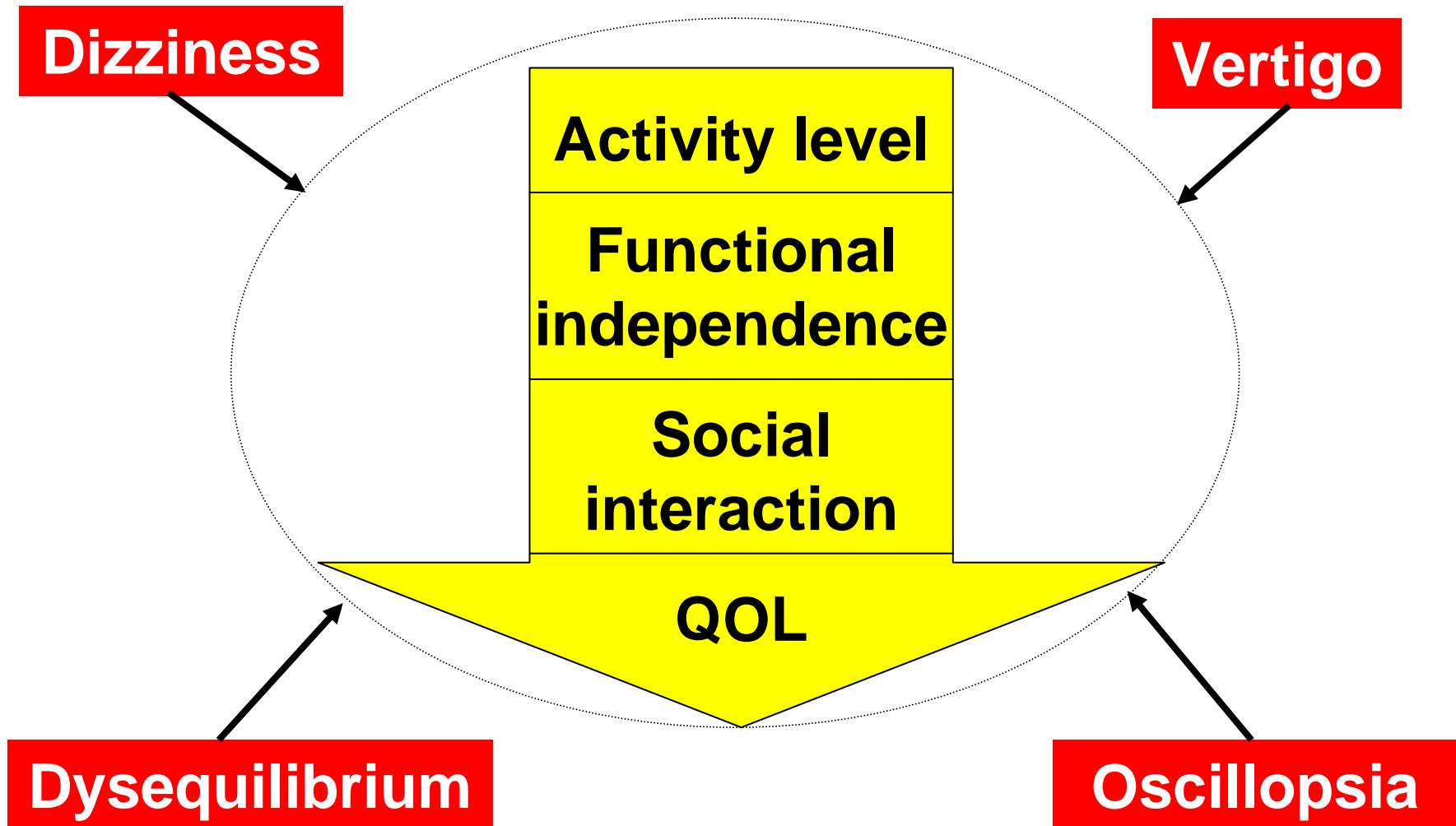
**R**ehabilitation

**United Christian Hospital**

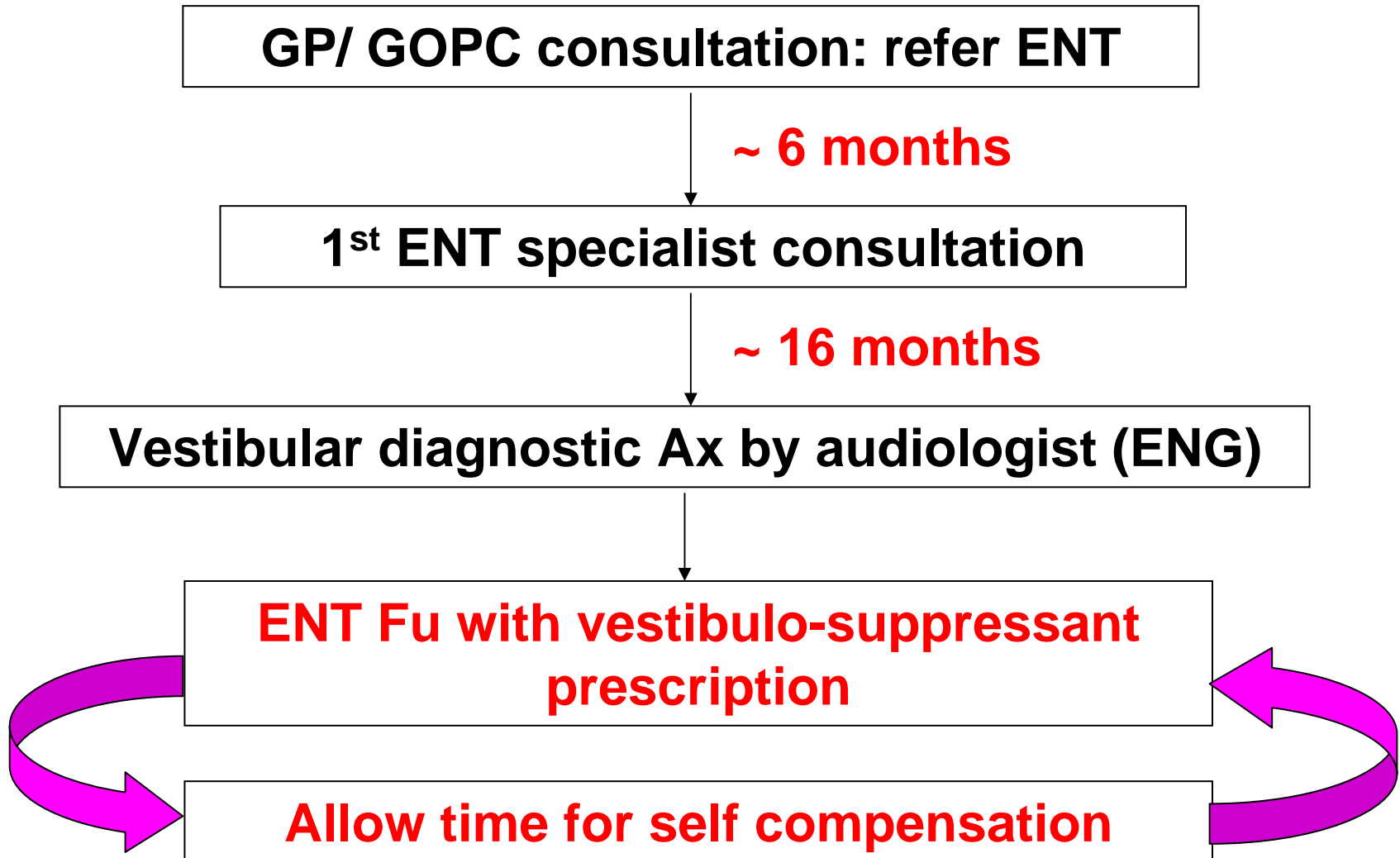
**(Audiology, ENT & Physiotherapy Departments)**

*Presented by Ms. Becky Lam (PT)*

# Uncompensated Peripheral Vestibular Hypofunction

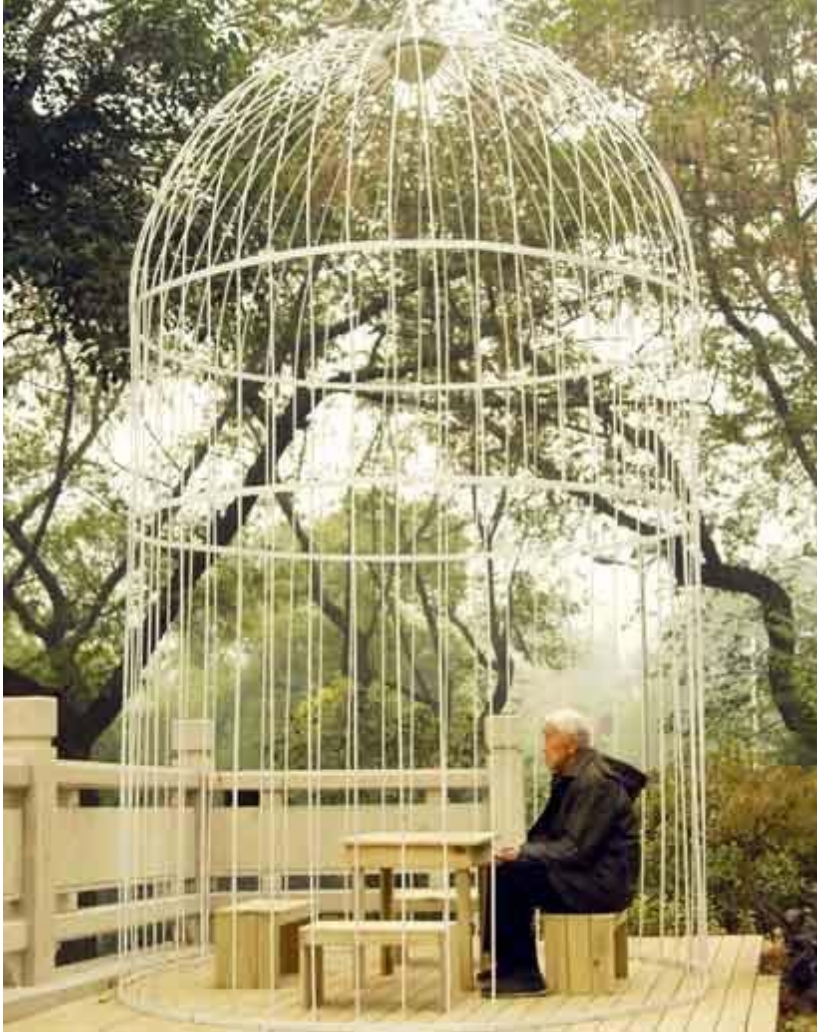


# Conventional Model





# No Way Out



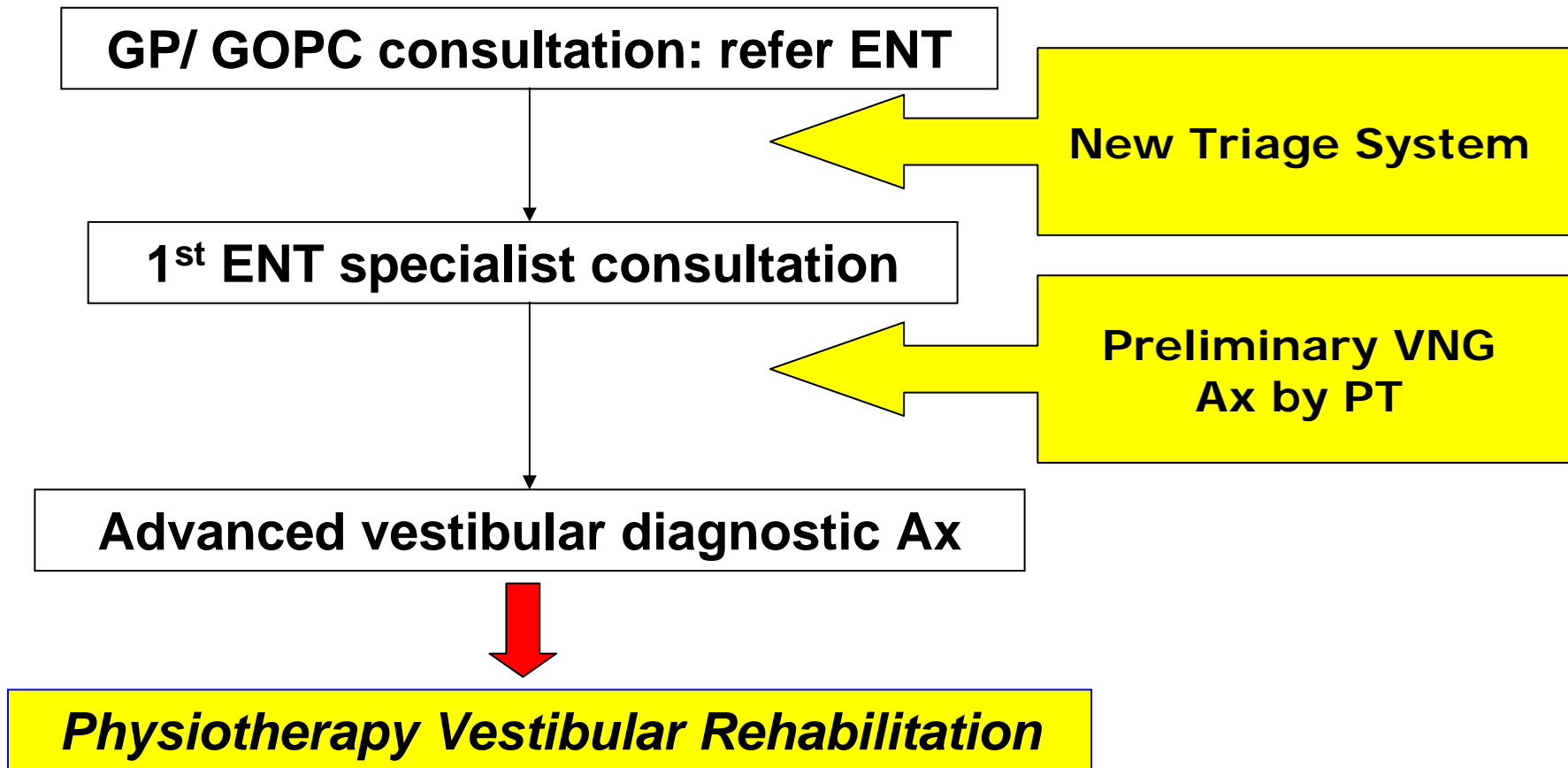
Symptomatic Control  
&  
Self Compensation

# Dragging in Health Care System

Health Care  
System

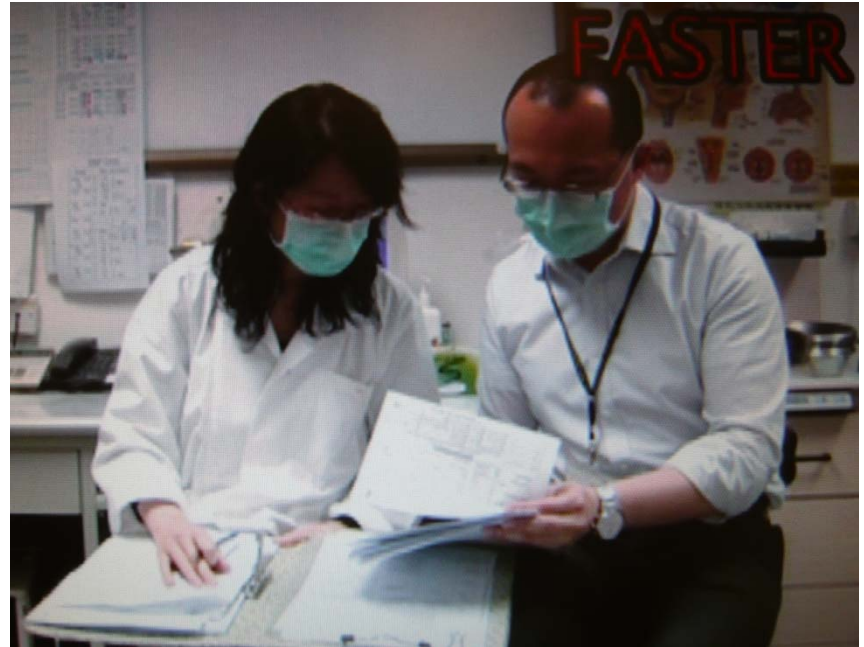


# FASTER – The Solution



# New Triage System

ENT specialists  
*triage* patients with  
possible vestibular  
hypofunction from  
routine waiting list

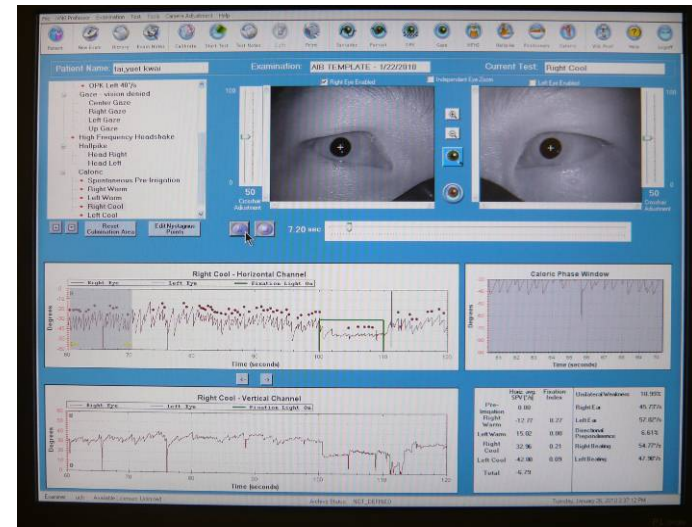


1st ENT consultation:  
6 months → 1 month



# Advanced Vestibular Diagnostic Ax

## Videonystagmography (VNG) by Physiotherapist



**Diagnostic test: 16 months → 2 months  
Vestibular Rehab for indicated cases**

# Physiotherapy

## Vestibular Rehabilitation

### Comprehensive Assessment

- Vestibular symptoms
- Functional limitation
- QOL



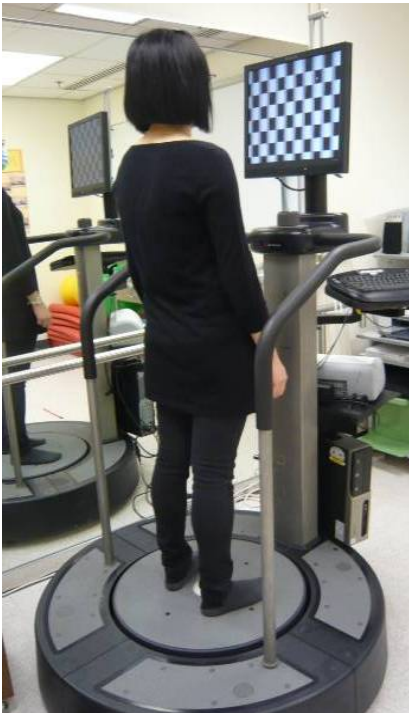
- Oculomotor function
- Balance

# Physiotherapy

## Vestibular Rehabilitation

### Specific & individualized training

- Adaptation, Gaze Stabilization, & Substitution



**Adaptation:  
Optokinetic Training**



**Gaze stabilization:  
Focus, Head Turn**



**Substitution :  
Trampoline Walk**

# Physiotherapy

## Vestibular Rehabilitation

- ***Balance Training & Reconditioning***



**Balance Training:**  
Tandam walk, Balance Beam



**Reconditioning**  
KT II , Semi Lunge



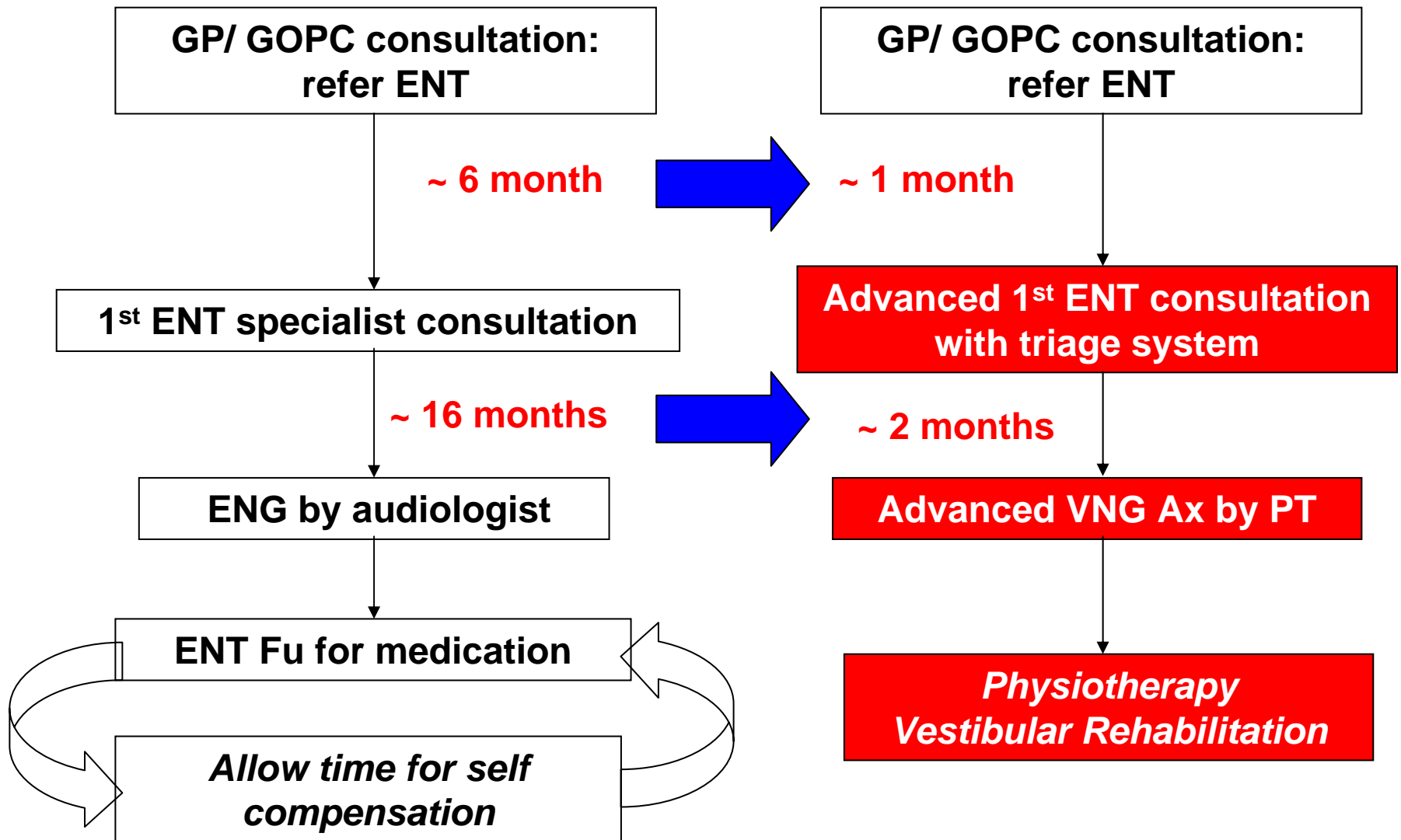
A photograph of Michael Schumacher, a Formula 1 driver, celebrating a victory. He is wearing a blue racing suit with 'TECHNOGYM' on the sleeves and a blue cap with 'GOOD YEAR' and a Goodyear logo. He is holding a large, ornate trophy above his head with both hands. The background is a blue wall with white and yellow text, including 'b' and 'b'.

# Promising Results

THE LIFE OF THE NEW  
FORMULA 1 CHAMPION

CHUMACHER

# Conventional Vs **FASTER**



# Time to obtain a confirmed Dx of vestibular hypofunction

$6 + 16 =$   
22 months



$1 + 2 =$   
3 months

# Results of Physiotherapy Vestibular Rehabilitation

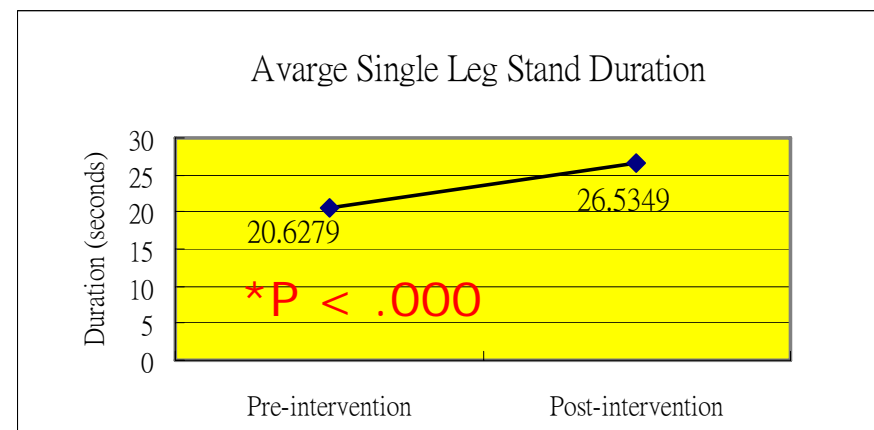
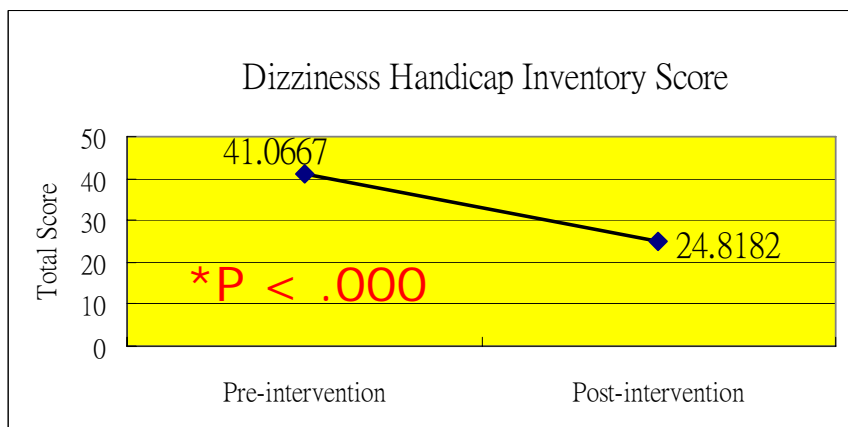
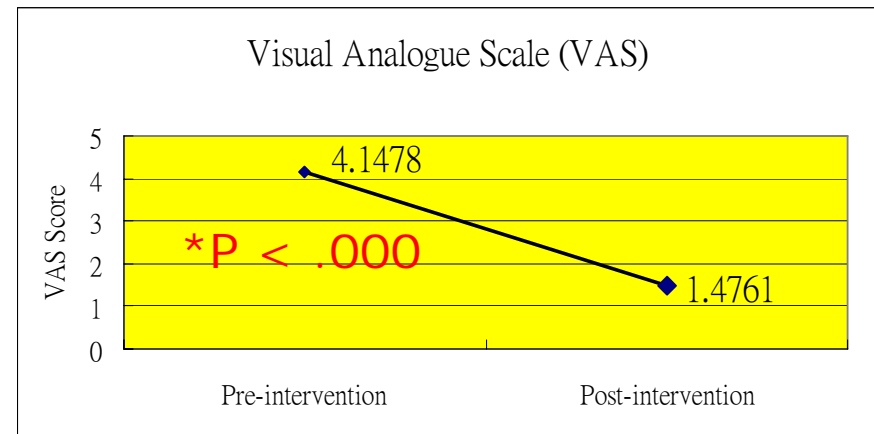
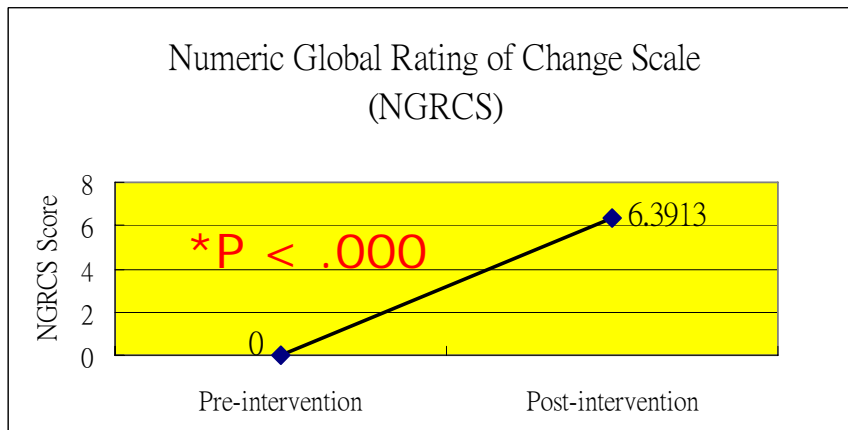
**March 2009 to March 2010**

No of Patient	46
Mean Age	56 years old
Duration of symptoms	63.6 months (~ 5 yrs)
No. of PT session	5.2



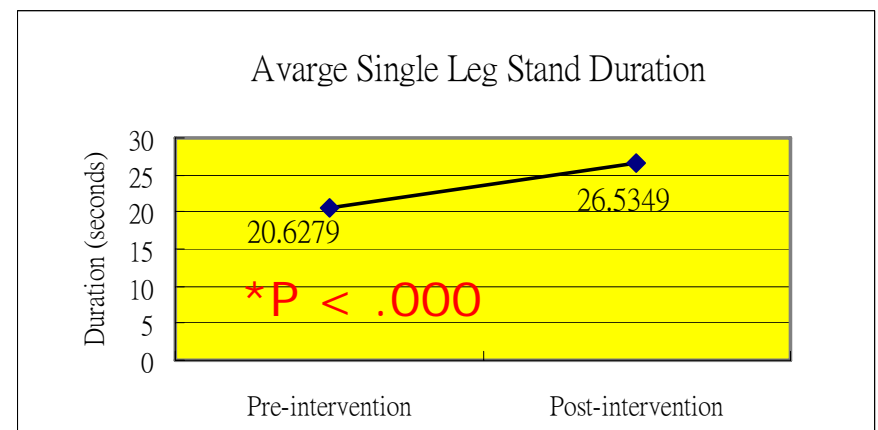
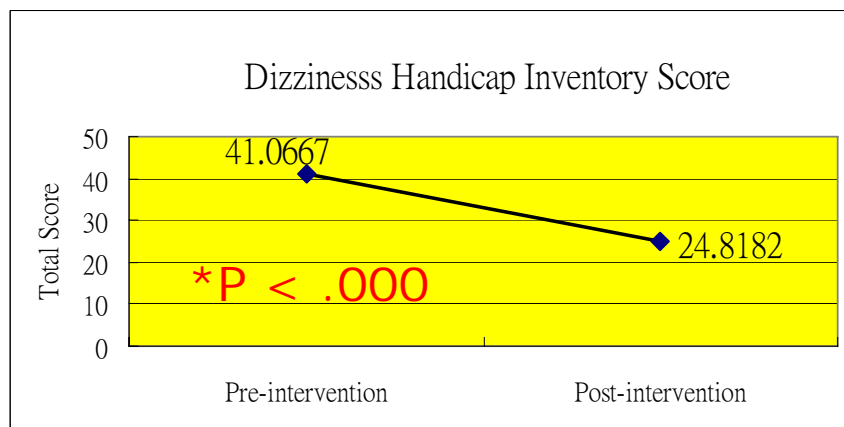
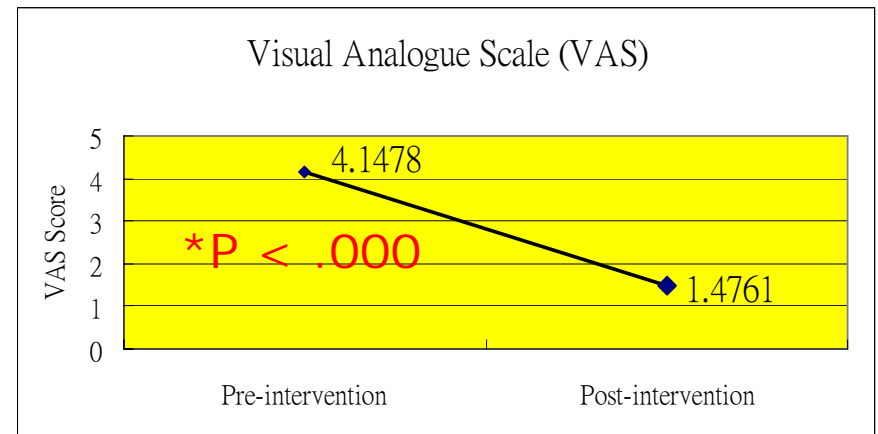
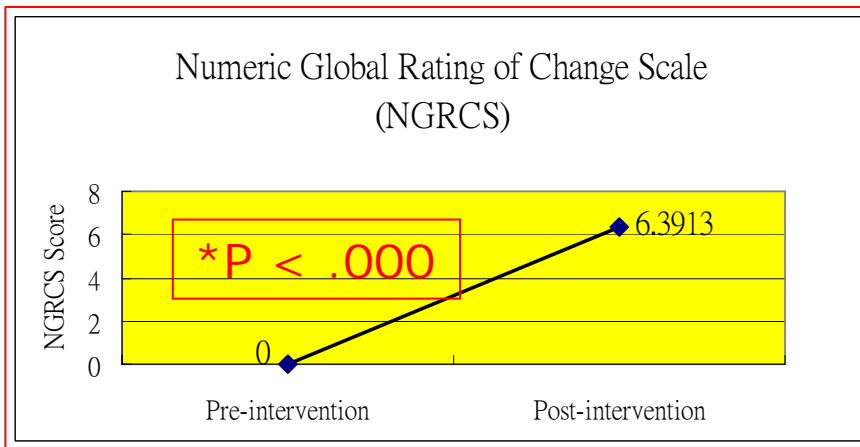
# Outcome Measures

**Significant positive effects were shown in all 4 outcome measures**



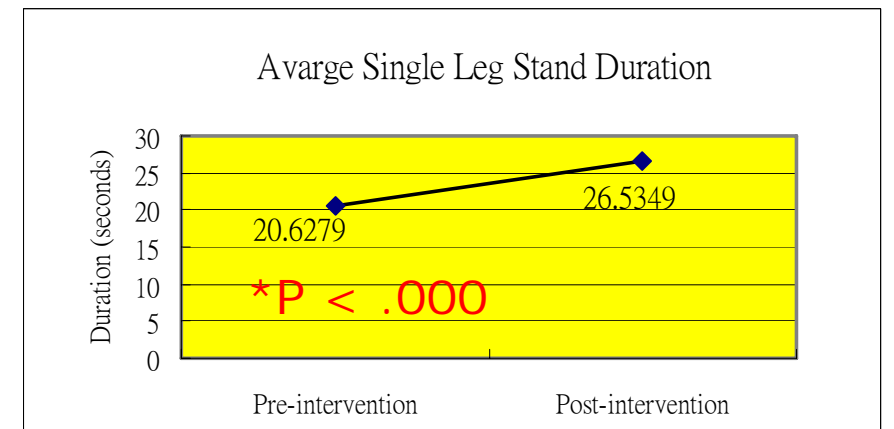
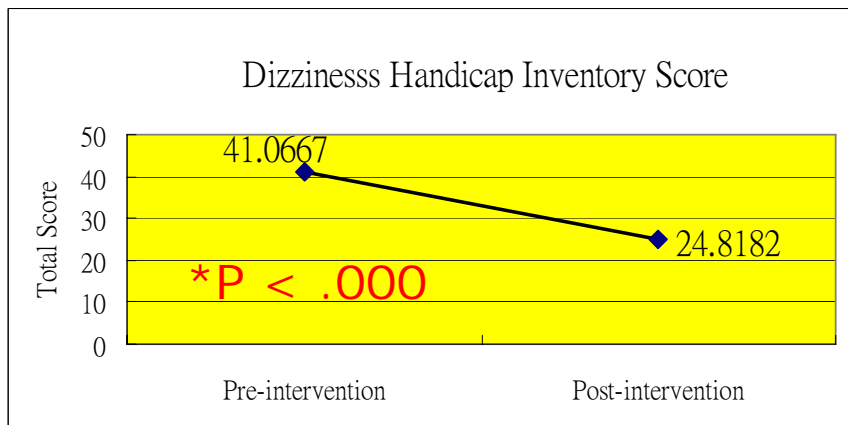
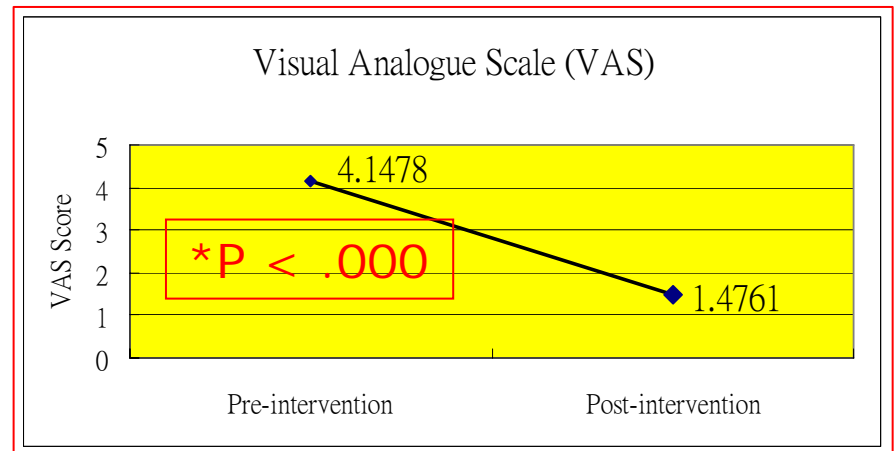
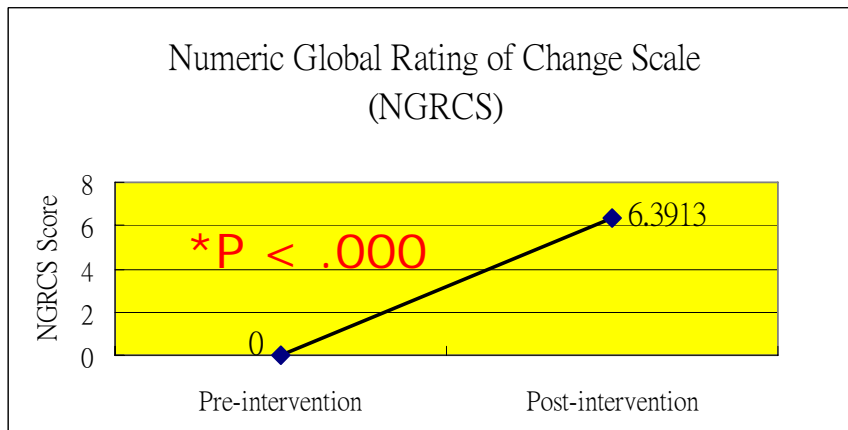
# Outcome Measures

## Numeric Global Rating of Change Scale (NGRCS) - Overall improvement with Rx



# Outcome Measures

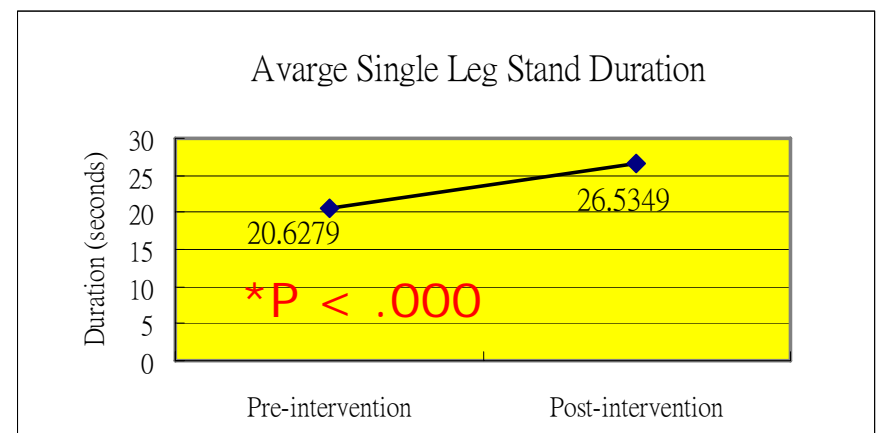
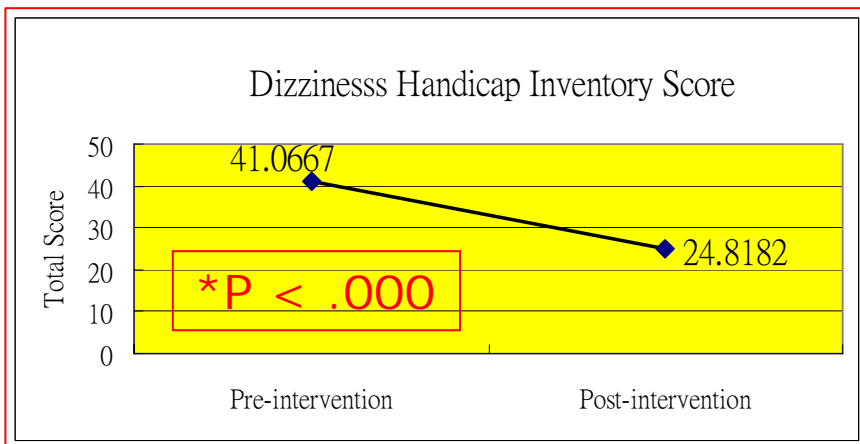
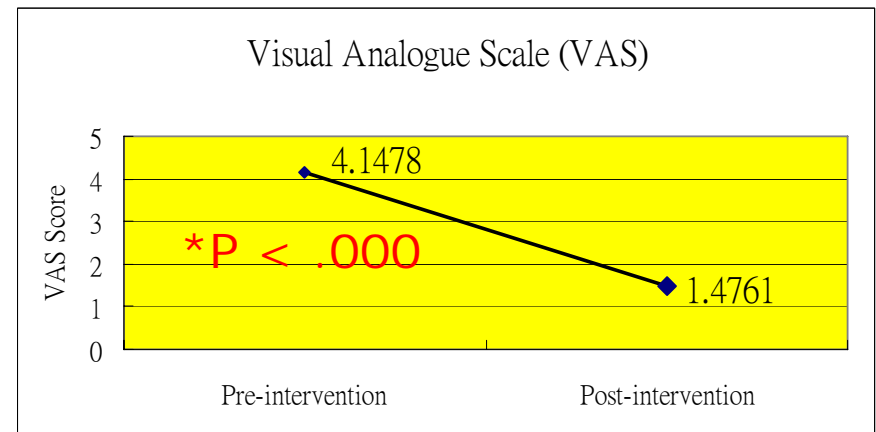
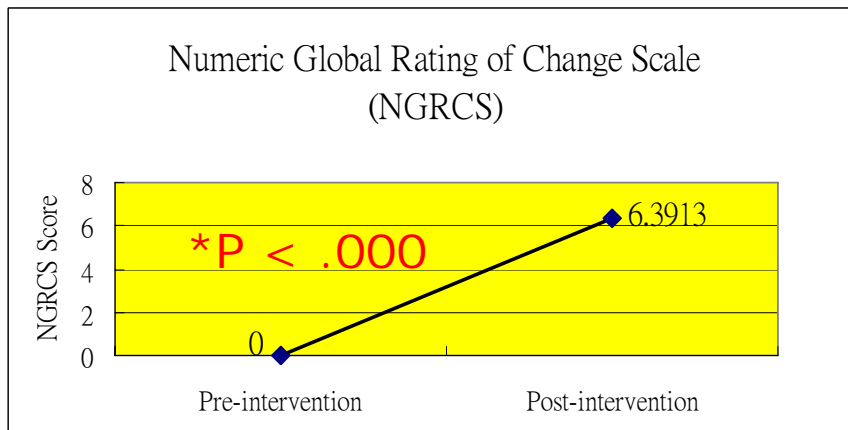
## Visual Analogue Scale - Symptoms severity measurement



# Outcome Measures

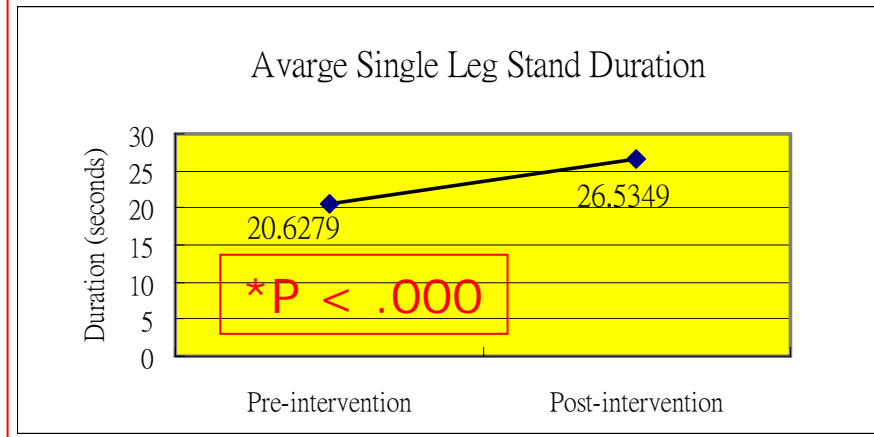
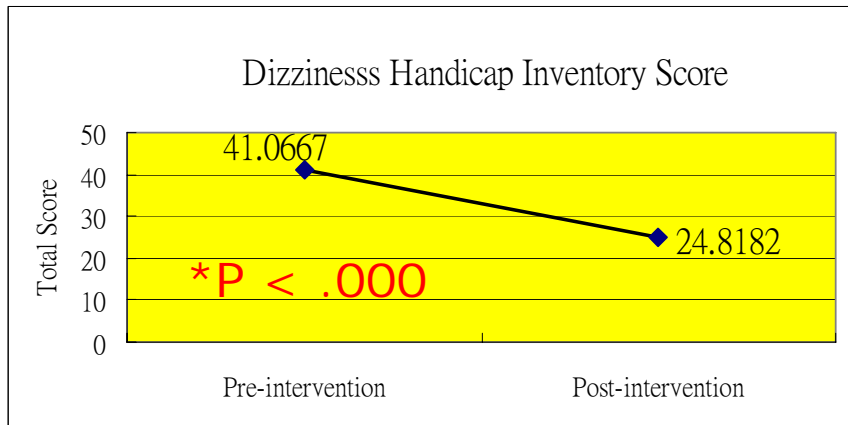
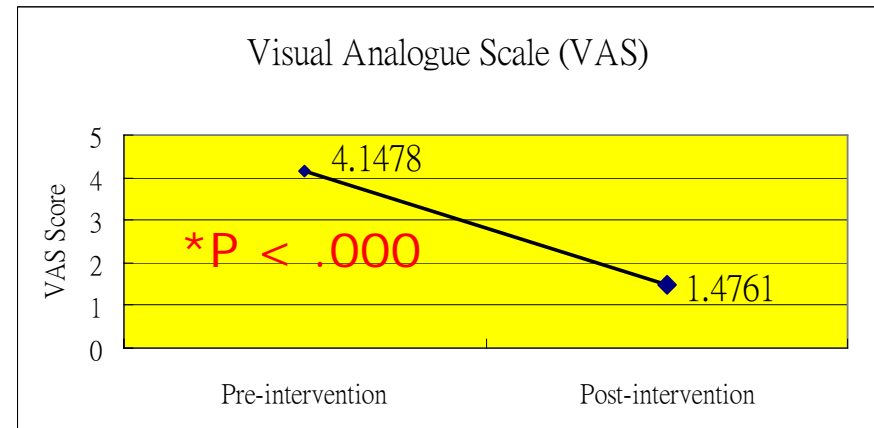
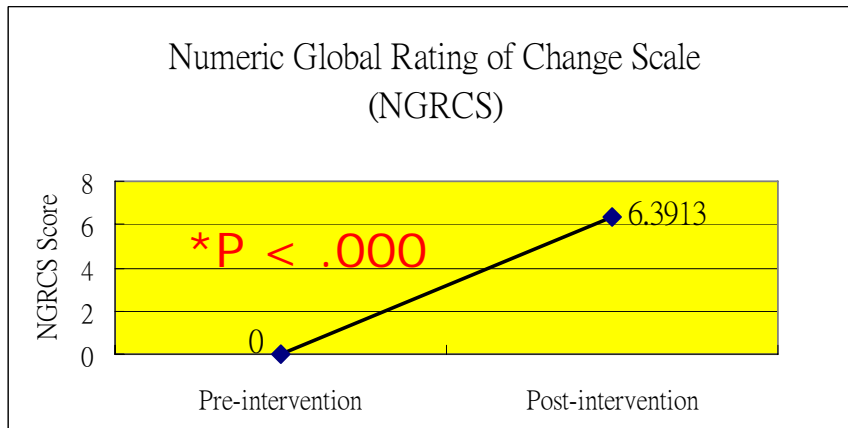
## Chinese Version of Dizziness Handicap Inventory

- QOL (chronic dizziness) measurement
- High total score indicate fall risk



# Outcome Measures

## Average Single Leg Stand Duration - Balance ability measurement (Max. 30s)



# Amazing Change with FASTER

**Shorten Waiting Time  
Advanced ENT SOPD (1/12)  
Advanced Diagnostic Ax (2/12)**

**PT Vestibular Rehabilitation  
to Enhance Physical Recovery  
& QOL**

**Facilitate Discharge  
from ENT SOPD**



九龍東醫院聯網  
KOWLOON EAST CLUSTER



# KEC 九龍東聯網 優質服務會議 QUALITY 優質服務會議 CONFERENCE 2010

完善醫療質安 · 全賴 努力  
Quality Healthcare — Every share

Harriet Lo

Betty Tsui

Becky Lam

Dr. Luk

Mrs. E Chan

Yvonne Lam

Dr. Wendy Kwan



**Thank You**



# Acknowledgements

## ENT Department

- Dr. Victor Abdullah (COS)
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- Ms. Betty Tsui (DM)

## Physiotherapy Department

- Mrs. Eleanor Chan (DM)
- Ms. Harriet Lo (SPT)