



# **Nausea :** **The Quality Of Life Of Patient With** **Chronic Kidney Disease (CKD)** **In Malaysia**

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# Presentation outlines

- Introduction
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- Study objectives
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# Introduction

- In Malaysia, the incidence and prevalence of patients with CKD has been on an upward trend for the past 20 years (Bujang et al., 2017)
- The most common Gastrointestinal (GI) symptoms in patients with chronic kidney disease (CKD) include **nausea**, vomiting, abdominal pain, constipation, and diarrhea (Cano et al., 2007)
- GI symptom in CKD patients in their study was **nausea** in 96% of cases (Nand, Malhotra, & Bala, 2014)
- GI disorders are a common - significantly impaired the **quality of life** (Jones, 2008).

# CKD stages

Stage	Description	GFR Level mL/ min
At increased risk	Risk factors for kidney disease (e.g, diabetes, high blood pressure, family history, older age)	90 or more
1	Kidney damage with normal or higher GFR	90 or more
2	Kidney damage and mild decrease in GFR	60 to 89
3	Moderate decrease in GFR	30 to 59
4	Severe decrease in GFR	15 to 29
5	Kidney failure (dialysis or kidney transplant needed)	Less than 15

(National Kidney Foundation Malaysia, 2018)

# Background

## QUALITY OF LIFE (QOL)

- an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns (<http://www.who.int/healthinfo/survey/whoqol-qualityoflife/en/>)
- affect in a complex way - person's physical health, psychological state, personal beliefs, social relationships & their relationship
- The QOL of CKD patients is a frequently overlooked yet critical consideration when evaluating their overall medical care

# Objectives

This study aimed to:

- determine the incidence of nausea among CKD patients
- identify the severity of nausea among CKD patients
- evaluate the quality of life (QOL) of CKD patients with nausea symptom.

# Methodology

- A cross-sectional study of 391 patients - all stages of CKD - from 3 center's in Malaysia
- This study was registered & approved by the ethics committee of the National Medical Research Register (NMRR-16-1819-32475 (IIR) & The Human Research Ethics Committee of USM (JEPeM)
- All stages of CKD (dialyze & non dialyze) aged 18 years old and above
- ROME III & KDQOL-SF™ instruments
- Analyze - SPSS version 24

# Study flow

**CKD**  
(all stages (Dialyze & Non –Dialyze))



**ROME III**



**NAUSEA**



**KDQOL**



**QUALITY OF LIFE**



# ROME III

- The Rome Foundation process is an international effort to create scientific data to help in the diagnosis & treatment of functional gastrointestinal disorders, also known as disorders of gut-brain interaction

(Schmulson & Drossman, 2017)

- The Rome Diagnostic criteria are set forth by the Rome Foundation, an independent, not for profit 501(c)(3) organization

(“The Rome Foundation,” n.d.)

# ROME III DIAGNOSTIC CRITERIA

## Nausea and Vomiting Disorders

### ▶ Chronic Idiopathic Nausea Diagnostic criteria

\* Must include all of the following:

1. Bothersome nausea occurring at least several times per week
2. Not usually associated with vomiting
3. Absence of abnormalities at upper endoscopy or metabolic disease that explains the nausea

\* Criteria fulfilled for the last 3 months with symptom onset at least 6 months prior to diagnosis

# KDQOL

- The KDQOL was developed as a self report, health-related quality of life measurement tool designed specifically for patients with CKD

(Hays, Kallich, Mapes, Coons, & Carter, 1994)

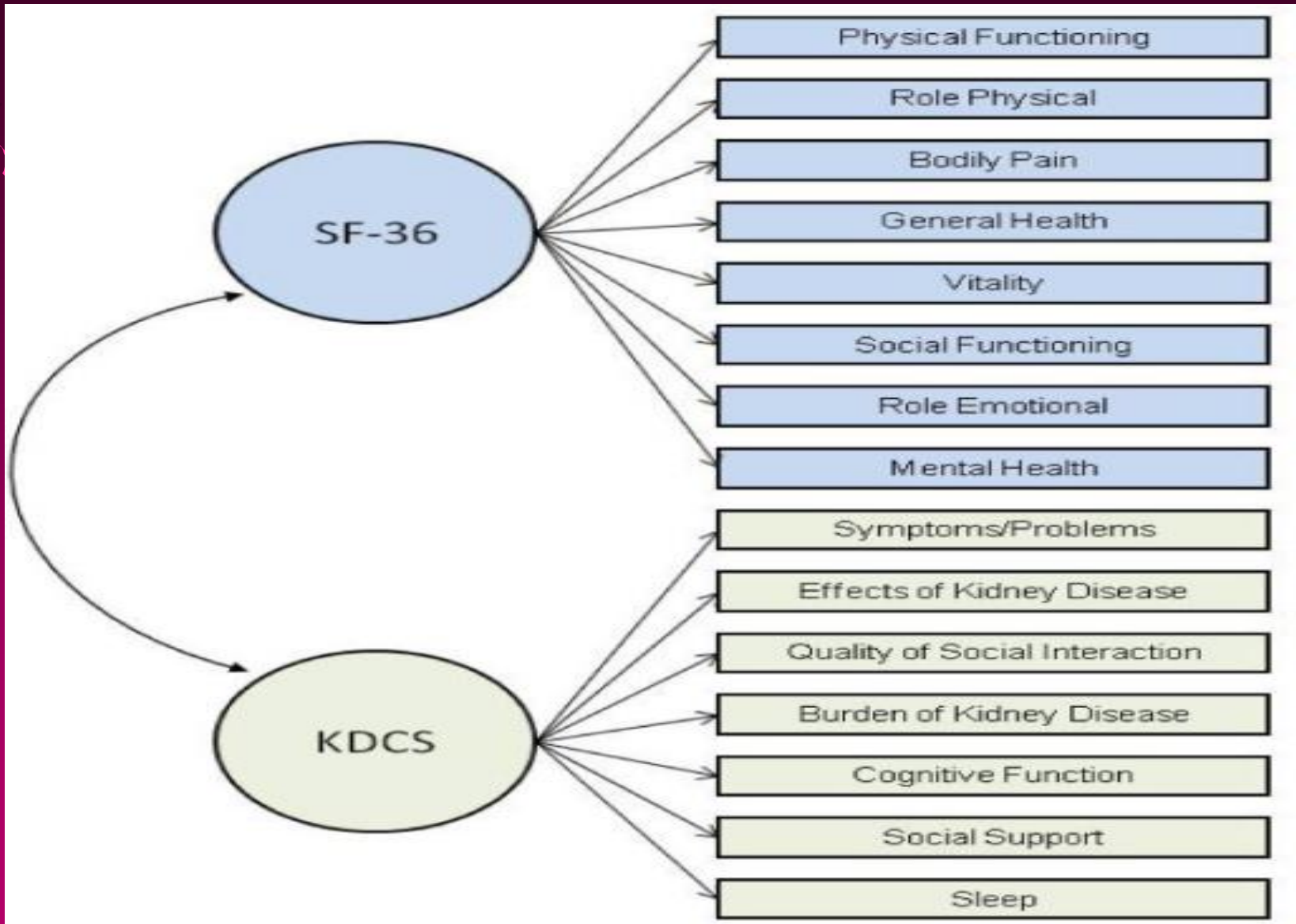
- The KDQOL-SF questionnaire (version 1.3), is a validated quality-of-life instrument that combines the generic SF-36 instrument with a kidney disease-specific instrument

(Leaf & Goldfarb, 2009)

- an internationally validated instrument for assessing the HRQOL

(Boudida et al., 2014)

# Structure of the KDQOL-SF™



# SF-36 components

ITEMS	SCALES	Dimensions	
3. Vigorous activities	Scale 1: Physical Functioning (PF)	Dimension A: PHYSICAL HEALTH	
4. Moderate activities			
5. Lift, carry groceries			
6. Climb several flights			
7. Climb one flight			
8. Bend, kneel			
9. Walk mile			
10. Walk several blocks			
11. Walk one block			
12. Bathe, dress			
13. Cut down time			Scale 2: Role-Physical (RP)
14. Accomplished less			
15. Limited in kind	Scale 3: Bodily Pain (BP)		
16. Had difficulty			
21. Pain-magnitude	Scale 4: General Health (GH)	Dimension B: MENTAL HEALTH	
22. Pain-interfere			
1. General health rating			
36. Excellent			
34. As healthy as anyone			
33. Sick easier			
35. Health worse			
23. Pep/life			Scale 5: Vitality (VT)
27. Energy			
29. Worn out			
31. Tired	Scale 6: Social Functioning (SF)		
32. Social-extent			
20. Social-time	Scale 7: Role-Emotional (RE)		
17. Cut down time			
18. Accomplished less			
19. Not careful	Scale 8: Mental Health (MH)		
24. Nervous			
25. Down in dumps			
26. Peaceful			
28. Blue/sad			
30. Happy			
2. Change in reported health			

# Results

## Demographic data

	no	%	Mean $\pm$ SD
<b>Gender</b>			
Male	182	46.6	
Female	209	53.5	
<b>Employment</b>			
Employment	202	51.7	
Unemployed	189	48.3	
<b>Race</b>			
Malay	338	86.4	
Non Malay	53	13.6	
<b>Marital Status</b>			
Married	249	63.7	
Not married	142	36.3	
<b>Age</b>			52.46 $\pm$ 16.60
<b>Dialysis Status</b>			
Yes	178	45.5	
No	213	54.5	
<b>CENTERS</b>			
HUSM	167	30.9	
HRPZ II	121	42.7	
SERDANG	103	26.3	

# Nausea CKD

stage	Nausea		Total
	Yes	No	
1	1	39	40
2	0	41	41
3	20	65	85
4	21	44	65
5	32	128	160
<b>Total</b>	74	317	391

# KDQOL MEAN SCORE

COMPONENT	MEAN $\pm$ SD
Physical Component Summary (PCS)	69.77 $\pm$ 16.95
Mental Component Summary (MCS)	51.66 $\pm$ 13.56
Kidney Disease Component Summary (KDCS)	64.83 $\pm$ 7.67
Kidney Disease Quality Of Life (KDQOL)	67.52 $\pm$ 6.99



# Physical Component Summary (PCS)

	Nausea mean $\pm$ SD score	T statistics (df)	Mean different	* <i>p</i> value
Physical Component Summary (PCS)	69.77 $\pm$ 16.95	3.070	7.05	0.002*
Physical functioning	66.97 $\pm$ 30.85	2.458	9.93	0.014
Role physical	69.26 $\pm$ 41.29	1.235	6.95	0.218
Pain	88.51 $\pm$ 20.04	1.461	4.10	0.145
General health	54.32 $\pm$ 10.71	3.067	7.24	0.002*

# Mental Component Summary (MCS)

	Nausea mean $\pm$ SD score	T statistics (df)	Mean different	*p value
<b>Mental Component Summary (MCS)</b>	<b>51.66 <math>\pm</math> 13.56</b>	<b>-1.975 (389)</b>	<b>-4.87</b>	<b>0.049*</b>
<b>Emotional well being</b>	<b>33.95 <math>\pm</math> 25.58</b>	<b>-2.356</b>	<b>-9.97</b>	<b>0.019*</b>
Role emotional	73.42 $\pm$ 41.28	1.302	7.18	0.194
Social function	58.98 $\pm$ 17.28	-1.866	-5.18	0.063
<b>Energy</b>	<b>40.27 <math>\pm</math> 23.88</b>	<b>-3.896</b>	<b>-11.48</b>	<b>0.000*</b>

# Kidney Disease Component Summary (KDCS)

	Nausea mean $\pm$ SD score	T statistics (df)	Mean different	*p value
<b>Kidney Disease Component Summary (KDCS)</b>	64.83 $\pm$ 7.67	-5.958	-5.82	0.000*
Symptom/ problem	89.67 $\pm$ 12.36	1.609	2.45	0.108
Effects of kidney disease	92.05 $\pm$ 12.74	1.960	3.41	0.051
Burden of kidney disease	24.41 $\pm$ 26.96	-4.359	-16.29	0.000*
Work status	50.68 $\pm$ 5.81	-0.460	-1.37	0.646
Cognitive function	81.97 $\pm$ 16.58	-4.518	-8.59	0.000*
Quality social interaction	81.34 $\pm$ 15.63	-3.489	-6.63	0.001*
Sex function	98.03 $\pm$ 11.81	1.940	4.22	0.053
Sleep	64.05 $\pm$ 12.98	-4.209	-9.05	0.000*
Social support	61.95 $\pm$ 21.47	-5.893	-17.72	0.000*
Dialysis staff encouragement	44.26 $\pm$ 25.86	-3.149	-11.82	0.002*
Patient satisfaction	77.48 $\pm$ 18.39	1.538	3.87	0.125

# Conclusions

These results demonstrate strongly that CKD patients with nausea symptoms affect their quality of life

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# Fund

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