

## PATIENT EDUCATION RESEARCH AND TRAINING IN NEPHROLOGY

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### MO1043 INFLUENZA VACCINE AWARENESS AND ACCEPTANCE AMONG INDIVIDUALS WITH GLOMERULONEPHRITIS AND RENAL VASCULITIS DURING THE CORONAVIRUS DISEASE 2019 PANDEMIC

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**BACKGROUND AND AIMS:** Patients with glomerulonephritis may have an increased risk of influenza infection and morbidity, but vaccine coverage remained low with little data on acceptance in glomerulonephritis. We aimed to assess influenza vaccine awareness among patients with glomerulonephritis and identify determinants of vaccine acceptance.

**METHOD:** Single-center cross-sectional study of patients with glomerulonephritis who completed a survey in the clinic or over the telephone between June and August 2021. Sociodemographic data, health literacy measured by HLS-EU-47 questionnaire, influenza and the coronavirus disease (COVID-19) vaccine awareness and determinants of vaccine acceptance according to the World Health Organization framework.

**RESULTS:** Among 86 patients who completed the survey, influenza vaccine awareness was lower than COVID-19 vaccine awareness (75.6% versus 100%). After adjusting for the survey type, use of English language at home and at healthcare settings, higher income and professional or executive occupation were significantly associated with influenza vaccine awareness, while older age and lower education level were associated with reduced awareness. The healthcare provider was the most frequent information source and > 90% trusted that healthcare providers and the government considered the patients' best interests and gave correct information. Only half thought their medical condition and medications would affect their vaccine decision while a quarter to half did not understand how the vaccine worked and thought there were better ways to protect against infection.

**CONCLUSION:** Healthcare providers can actively identify and advocate influenza vaccines to the unaware and overcome potential barriers to reduce influenza infections and morbidity in glomerulonephritis.

### MO1044 UNDERSTANDING PERCEPTION OF PREGNANCY RISK IN WOMEN WITH CHRONIC KIDNEY DISEASE

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**BACKGROUND AND AIMS:** Women with chronic kidney disease (CKD) are at increased risk of adverse pregnancy and renal outcomes, including preterm birth and progression of kidney disease. Women's risk perceptions of pregnancy impact behaviours and decisions including engagement with prenatal care, mode of delivery choices and adherence to medical advice, therefore, it is important that women perceive and understand their risk accurately. Pre-pregnancy counselling is recommended for all women with CKD, but it is unknown how women with CKD understand their pregnancy risk and if pre-pregnancy counselling affects women's perceptions. The aim of this study was to understand how a large cohort of diverse women with CKD perceive their pregnancy risk and compare differences in risk perceptions between those who have and have not received pre-pregnancy counselling. **METHOD:** The 'Perception of Pregnancy Risk Questionnaire' (PPRQ:1) and 'Desire to Avoid Pregnancy Questionnaire' (2) were used to measure risk perception and pregnancy intention respectively. The PPRQ was adapted to assess risk perceptions in women with CKD including the severity of kidney disease. Content validity of the adapted PPRQ was confirmed by a panel of 21 experts including nephrologists, midwives, psychologists and obstetricians. Women aged between 18 and 50 years with CKD stages 1–5 were recruited from nine renal units in the United Kingdom and asked to complete an online survey (October 2020–December 2021). Clinical data were extracted from local databases. Data were analysed descriptively.

**RESULTS:** A total of 322 women completed the survey, mean age of 34.9 (SD 7.1) years. Women's obstetric history and pregnancy perspectives are described in the Table. Half of the respondents already had children (172/322; 54.1%) and three-quarters perceived pregnancy to be important or very important to themselves (241/322; 75.8%) and two-thirds (218/322; 66.7%) perceived pregnancy to be important or very important to their family. Only 109/321 (34%) of women with CKD had previously attended pre-pregnancy counselling, but those who had attended had a higher perception of pregnancy risk [51.4 (SD 21.4) versus 41.9 (SD 23.8);  $P < 0.0001$ ] (0: not very severe to 100: extremely severe) and severity of kidney disease [51.3 (SD 24.9) versus 43.7 (SD 28.6);  $P = 0.014$ ] compared to women who had not attended pre-pregnancy counselling.

**CONCLUSION:** This large multi-centre questionnaire study identified that risk perceptions of pregnancy for women with CKD appear to be higher than those of women with an uncomplicated pregnancy [PPRQ scores of 24.0 (SD 14.5)] [1]. However, women who had received pre-pregnancy counselling had a significantly higher perception of pregnancy risk and perceived severity of kidney disease. Limitations include a lack of measurement before and after attending a pre-pregnancy counselling clinic. Further assessment of the relationship between severity of kidney disease and perceived pregnancy risk and pregnancy intentions is needed.

#### REFERENCES

1. Heaman M, Gupton A. Psychometric testing of the Perception of Pregnancy Risk Questionnaire. *Res Nurs Health*. 2009; **32**: 493–503
2. Rocca CH, Ralph LJ, Wilson M *et al*. Psychometric evaluation of an instrument to measure prospective pregnancy preferences. *Med Care*. 2019; **57**: 152–158

**Table 1. Comparison by awareness of influenza vaccination**

	Not aware of influenza vaccine N = 21	Aware of influenza vaccine N = 65	P-value
Clinic respondents, n (%)	7 (33.3)	38 (58.5)	0.045
Telephone respondents, n (%)	14 (66.7)	27 (41.5)	
Age at screening, years	53.2 (40.1, 59.0)	39.2 (30.6, 52.6)	0.02
Male, n (%)	8 (38.1)	25 (38.5)	0.98
English spoken at home, n (%)	7 (33.3)	43 (66.2)	0.008
English spoken at healthcare, n (%)	16 (76.2)	62 (95.3)	0.03
Secondary school education or below, n (%)	11 (52.4)	14 (21.5)	0.007
Professional or executive, n (%)	6 (28.6)	37 (56.9)	0.02
Income above \$2000/month, n (%)	10 (55.6)	48 (84.2)	0.02
Disease duration, months	33 (15, 53)	40 (19, 59)	0.43
Aware of COVID-19 vaccine, n (%)	21 (100)	65 (100)	-
Received COVID-19 vaccine, n (%)	20 (95.2)	52 (80.0)	0.17
Health literacy index	32.6 (30.1, 38.5)	33.3 (30.5, 38.6)	0.72

Categorical variables were presented as number (percentage) and compared using the Pearson chi-squared or Fisher's exact test as appropriate. Continuous variables were presented as medians with interquartile ranges [IQR (25th percentile, 75th percentile)] and compared using the Mann–Whitney U test.  $P$ -values < 0.05 were considered statistically significant.

**Table 2. Factors associated with influenza vaccine awareness after adjusting for survey type**

	Adjusted Odds Ratio	95% Confidence Interval	P-value
Age at screening, per 1 year increase	0.95	0.92–0.99	0.02
Male compared to female	1.03	0.36–2.91	0.96
English spoken at home, yes	3.19	1.07–9.47	0.04
English spoken at healthcare, yes	8.87	1.70–46.37	0.01
Secondary school education or below, yes	0.23	0.08–0.68	0.008
Professional or executive, yes	3.36	1.20–10.93	0.02
Income above \$2000/month, yes	4.03	1.19–16.63	0.03
Disease duration, per 1 month increase	1.01	0.98–1.03	0.63
Received COVID-19 vaccine, yes	3.34	0.38–29.47	0.28
Health literacy index, per unit increase	0.95	0.86–1.06	0.35

**MO1045 INCIDENTAL FINDING OF DEXTROCARDIA WITH SITUS INVERSUS AND THE ABSENT LEFT KIDNEY IN A 55-YEAR-OLD NEPALI WOMAN: A CASE REPORT**

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**BACKGROUND AND AIMS:** Dextrocardia is an abnormal congenital positioning of the heart: instead of the heart forming in the foetus on the left side, it flips over and forms on the right side. Situs inversus is a congenital condition in which the main visceral organs are reversed or mirrored from their usual positions. If both conditions are present, it is called situs inversus totalis. The prevalence of situs inversus is about 0.01%. It is generally an autosomal recessive genetic condition, although it can be X-linked. 25% of people with this condition have an underlying primary ciliary dyskinesia. We are reporting a case of a 55-year-old woman who was found to have a situs inversus totalis with an absent left kidney. No case report has been published yet. **METHOD:** 54-year-old G5P4(2213) woman, government worker presented to an outpatient clinic with complaints of dysuria, frequency, hesitancy, suprapubic burning sensation and mild chest pain in January 2016. The patient did not have any cardiopulmonary symptoms like chronic coughs, nasal congestion and palpitations. Physical examination of the cardiovascular system revealed a normal pulse rate of 70 beats/min and her blood pressure was 100/60 mmHg. Her lungs were clear on auscultation. There was no pedal oedema or any signs of fluid overload. Routine urine analysis revealed protein 1+, with no sugar, no white cell count and negative nitrites. Renal function test showed mildly elevated creatinine of 138.0 umol/L with estimated glomerular filtration rate (eGFR) of 49mL/min using Cockcroft-Gault

equation, sodium of 141.0 mEq/L, potassium (K) 5.2 mEq/L, blood urea 9.7mmol/L. Routine chest X-ray revealed heart apex in the right side and gastric air bubble seen below right hemidiaphragm. Abdominal and pelvic ultrasound revealed the liver presented in the left hypochondrium with normal texture. The spleen was noted in the right hypochondrium with normal texture. The right kidney was normal ~ 9.7cm in size, the outline was smooth and regular with maintained corticomedullary differentiation, with no hydronephrosis. The left kidney was not visualized. The urinary bladder was normal in outline, distensibility and thickness. The uterus was anteverted with a regular outline and normal endometrial echo complex. Computed tomography scan with contrast of abdomen was done which revealed the liver was present in the left hypochondrium and the spleen was present in the right hypochondrium, inferior vena cava on left side and aorta on the right side. The left kidney and ureter were not visualized. Normal right pelviccalyceal system and excretion from the right kidney were noted.

**RESULTS:** The above-mentioned patient did not have any cyanosis, cough, sinusitis, or recurrent chest or urinary tract infections. To diagnose situs inversus, thorough physical examination, chest X-ray, ultrasonography, computed tomography, or magnetic resonance imaging are necessary. These imaging modalities help to evaluate the structures of the internal organs, such as the location of cardiac apex, the site of aorta relative to midline, the location of the stomach, the liver and gallbladder, presence and appearance of the spleens and presence of the kidneys and vascular structures.

**CONCLUSION:** Dextrocardia with situs inversus is a rare congenital malformation that must be fully evaluated when there is a suspicion because in some cases it can have deadly results. Apart from detailed medical history and physical examinations, imaging modalities should be used for reaching the diagnosis. Routine and regular follow-ups must be arranged for the patients who have this condition. Patients with

**Table 1. Women’s obstetric history and pregnancy perspectives**

Variable	
N	322
Age (mean (SD))	34.99 (7.07)
Pre-pregnancy counselling clinic attendance, n (%)	
Yes	109 (34%)
NA	1 (0.3)
Perceived importance of pregnancy, n (%)	
unimportant	31 (9.6)
slightly important	14 (4.3)
moderately important	36 (11.2)
important	76 (23.6)
very important	165 (51.2)
Perceived importance of pregnancy to family, n (%)	
unimportant	38 (11.8)
slightly important	17 (5.3)
moderately important	49 (15.2)
important	101 (31.4)
very important	117 (36.3)
Currently trying to conceive, n (%)	
Yes	49 (15.3)
NA	2 (0.6)
Have they had a previous pregnancy (including miscarriage), n (%)	
Yes	192 (60.2)
NA	3 (0.9)
Do they have children, n (%)	
Yes	172 (54.1)
NA	4 (1.2)

NA: Not answered