

Appendix

Screenshots of the renal electronic patient record showing a fictitious patient dialysis education session record.

Figure 1: Shared Decision Making Screen

The screenshot shows the VitalDataClient interface for a patient named 'test'. The main window is titled 'Shared Decision Making' and contains a table with the following data:

Date	Preferred treatment choice	Comments	Creator	Amended by	Update time
20/02/2022	PD	This text box is used to record the narrative of the	Ja004216	Ja004216	20/02/2022 19:20:4

Below the table, there is a 'Total = 1' indicator and a list of decision-making questions with their corresponding answers:

- Date of review: 20/02/2022
- Was PD discussed as a viable treatment choice? Yes; PD not chosen as current BMI precludes PD
- Was Home HD discussed as a viable treatment choice? Yes; and considered a viable option by patient
- Was Transplantation discussed as a treatment option? Yes; both live and deceased donor transplant discussed
- Was maximum Conservative Management discussed? Yes; but patient did not consider MCM a viable option
- Preferred treatment choice: PD

The 'Comments' field contains the text: 'This text box is used to record the narrative of the visit. The patient home situation for example.'

At the bottom, the 'Created by' field is filled with 'Ja004216 James Anthony Chess - Consultant (SBU)'. The 'Amended by' and 'Updated at' fields also show 'Ja004216 James Anthony Chess - Consultant (SBU)' and '20/02/2022 19:20:42' respectively.

Figure 2:Quality of Life/Functional score screen

The screenshot displays the VitalDataClient application window. The title bar reads "VitalDataClient at All Wales Renal on Database 'allwalesrenal'". The main window is titled "QoL/Functional score" and contains a table with the following data:

Date	EQ5DL	Charlson	VAS	Frailty	Comments	Created by	Insert Time
20/02/2022	21311	TBA	62	Vulnerable	This patient can walk 100 yds on the flat without problem:	Ja004216	

Below the table, a summary bar shows "Total = 1". The main form area includes:

- Date of assessment:** 20/02/2022
- EQ5DL:** Mobility (Slight problems), Self-care (No problems), Usual activities (Moderate problems), Pain/discomfort (No problems), Anxiety/depression (No problems), Calculated score (21311).
- VAS:** A slider scale from 0 to 100, currently set at 62. Below it is the text "VAS - slide to indicate increasing well-being" and a URL: <https://euroqol.org/eq-5d-instruments/eq-5d-5l-av>.
- Clinical frailty scale:** Vulnerable, with a URL: <https://www.dal.ca/sites/gmi/our-tools/clinical-frailty-scale.html>.
- Charlson co-morbidity index score:** TBA, with a URL: <http://touchcalc.com/calculators/cqi.js>.
- Comments:** This patient can walk 100 yds on the flat without problems.
- Cardiff Digest:** (Empty field)
- Created on/by:** Ja004216, James Anthony Chess - Consultant (SBU)
- Amended on/by:** 20/02/2022 19:2, Ja004216, James Anthony Chess - Consultant (SBU)

The bottom of the screen shows a status bar with "Changes have been saved" and buttons for "Apply", "OK", and "Cancel".

Appendix Table 1: Baseline demographics and characteristics of 1707 patients who underwent pre-dialysis education between 2016 and 2018		
Variable	Category	Descriptive Statistics
Age in years, mean (SD)		67.7 (15.8)
Age group, n (%)	18-64	595 (34.9)
	65-74	432 (25.3)
	75-84	464 (27.2)
	>=85	216 (12.7)
Gender, n (%)	Female	680 (39.8)
	Male	1027 (60.2)
Deprivation - WIMD Quintile, n (%) n=1622	Quintile 1 (Most deprived)	354 (21.8)
	Quintile 2	382 (23.6)
	Quintile 3	334 (20.6)
	Quintile 4	283 (17.4)
	Quintile 5 (Least deprived)	269 (16.6)
Body mass index, n (%) n=1413	Underweight (<18.5)	30 (2.1)
	Normal (18.5-25)	360 (25.5)
	Overweight (25-30)	454 (32.1)
	Obese (>30)	569 (40.3)
eGFR mls/min, mean (sd) n=1590		16.9 (6.3)
eGFR Stage, n (%) n=1676	2 or 3	45 (2.7)
	4	856 (51.1)
	5	689 (41.1)
	On KRT at time of education	86 (5.1)
Number of comorbidities (in addition to CKD), n=1643 (%)	0 (CKD Only)	129 (7.9)
	1-2	636 (38.7)
	3-4	640 (39)
	5 or more	238 (14.4)
Quality of life domains (with any reported problems), n (%) n=1220	Mobility problems	805 (65.6)
	Self-care problems	429 (35.0)
	Usual activity problems	764 (62.3)
	Pain/discomfort	700 (57.1)
	Anxiety/depression	641 (52.0)
Self-rated health VAS, mean (sd) n=1010		65.02 (21.1)
Frailty score, n (%) n=1230	Very fit to Managing well	611 (49.7)
	Vulnerable to Moderately Frail	565 (45.9)
	Severely Frail to Terminally Ill	54 (4.4)
Travelling time to nearest renal centre, n (%)	Up to 30 minutes	1052 (61.6)
	30 to 60 minutes	522 (30.6)
	Greater 60 minutes	133 (7.8)
Inpatient hospitalisation days in year prior to pre-dialysis choice, n (%) n=1690	None	831(49.2)
	1-7	315(18.6)
	8-14	146(8.6)
	>14	398(23.6)

Unless otherwise stated n=1707.
SD, Standard Deviation; WIMD, Welsh Index of Multiple Deprivation 2014; eGFR, Estimated Glomerular Filtration rate; VAS, Visual analogue scale. Summary statistics to 1 decimal place.

Appendix Table 2: Values of factors associated with patient discussion tabulated by whether modality discussed								
Variables	Was HHD discussed? n=1441		Was PD discussed? n=1454		Was Transplant discussed? n=1454		Was MCM discussed? n=1462	
	Yes	No	Yes	No	Yes	No	Yes	No
Count, n (%)	945 (65.6)	496 (34.4)	1078 (74.1)	376 (25.9)	588 (40.5)	865 (59.5)	735 (50.3)	727 (49.7)
Age in years, mean	60.0	75.4	65.4	74.1	55.7	75.6	75.4	60.0
Gender female, %	37.9	42.3	38.7	41.8	37.9	40.8	41.4	37.7
Body mass index, mean	30.1	29.0	29.4	30.8	29.8	29.1	28.9	30.4
eGFR mls/min, mean	16.3	17.4	16.4	17.6	16.69	17.0	16.1	17.4
Number of comorbidities (in addition to CKD), median	3	3	2	3	2	3	3	2
Inpatient hospitalisation days in year prior to pre-dialysis choice, median	0	3	0	4	0	2	1	0
Deprivation – WIMD, median	852	798	838	840	859	840	889	787
Travelling time mins, median	25.3	24.3	23.6	26.6	23.6	25.2	25.9	23.7
EQ-5D score, median	0.7	0.6	0.7	0.6	0.8	0.7	0.7	0.8
Self-rated health VAS, median	70	62	69	62	70	61	64	70
Frailty score, median	2	3	2	4	2	3	3	2

WIMD, Welsh Index of Multiple Deprivation 2014 ; eGFR, Estimated Glomerular Filtration rate; VAS, Visual analogue scale.
Percentages and summary statistics to 1 decimal place.

Appendix Table 3: Baseline characteristics of patients who underwent pre-dialysis education tabulated by patient's choice at first assessment						
Variable, statistic	HHD	PD	UHD	Transplant	MCM	Undecided
Count, n (%)	68 (4)	356 (20.9)	552 (32.3)	109 (6.4)	231 (13.5)	391 (22.8)
Age in years, mean	59.8	62.4	68.5	48.6	82.8	69.2
Gender female, %	40	40	39	35	46	38
Body mass index, mean	30.6	29.2	31.2	28.8	27.1	29.5
eGFR mls/min, mean	17.4	17.2	16.3	18.3	18.5	16.6
Number of comorbidities (in addition to CKD), median	3	2	3	2	3	3
Inpatient hospitalisation days in year prior to pre-dialysis choice, median	0	0	3	0	4	0
Deprivation – WIMD, median	674	803	745	544	799	743
Travelling time to nearest renal centre, median	25.0	27.2	24.6	18	25.3	29.1
EQ-5D score, median	0.7	0.7	0.6	0.7	0.6	0.7
Self-rated health VAS, median	65	69	60	70	62	61
Frailty score, median	2	2	3	1	4	3
WIMD, Welsh Index of Multiple Deprivation 2014; eGFR, Estimated Glomerular Filtration rate; VAS, Visual analogue scale. Percentages and summary statistics to 1 decimal place.						