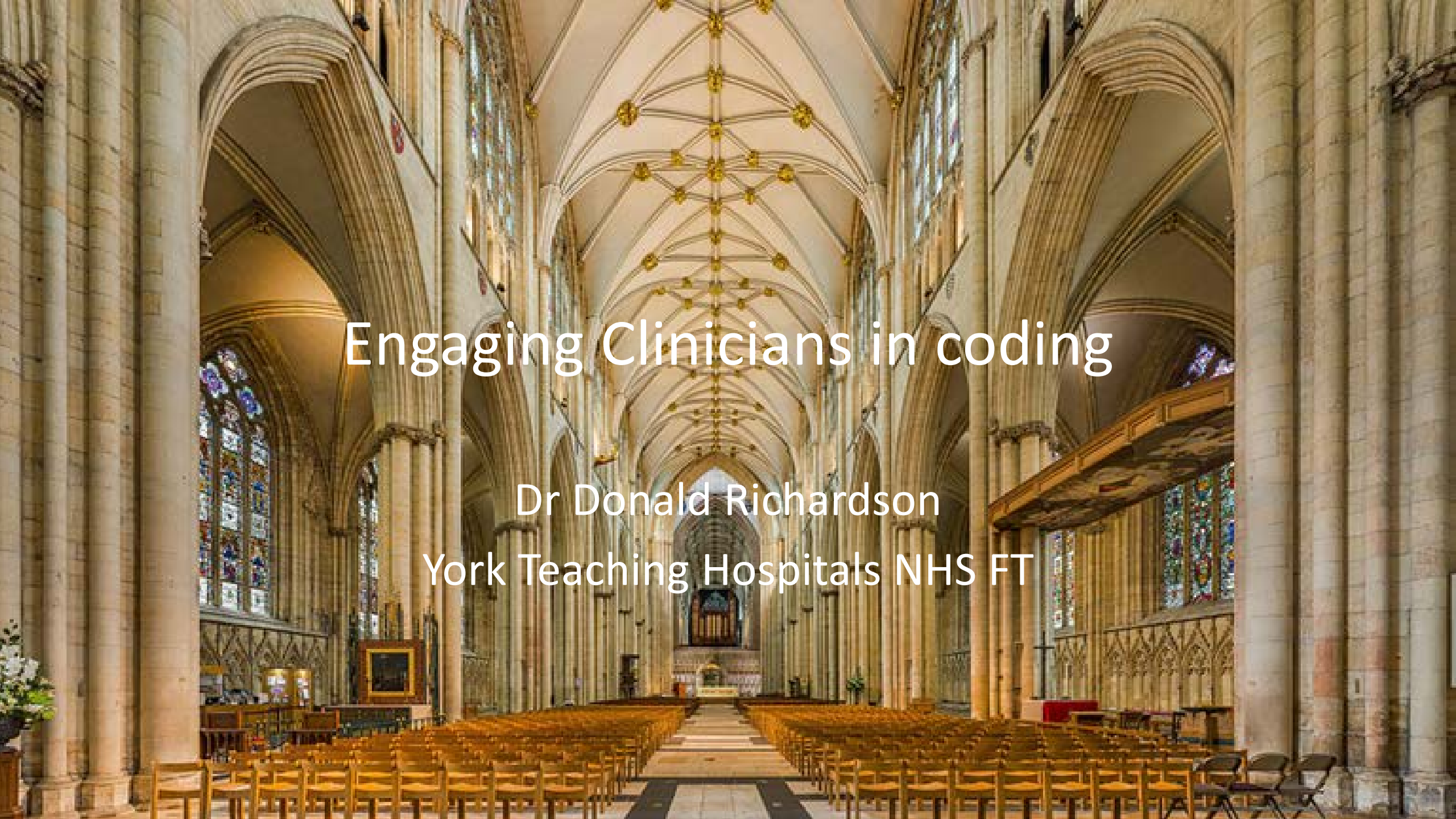


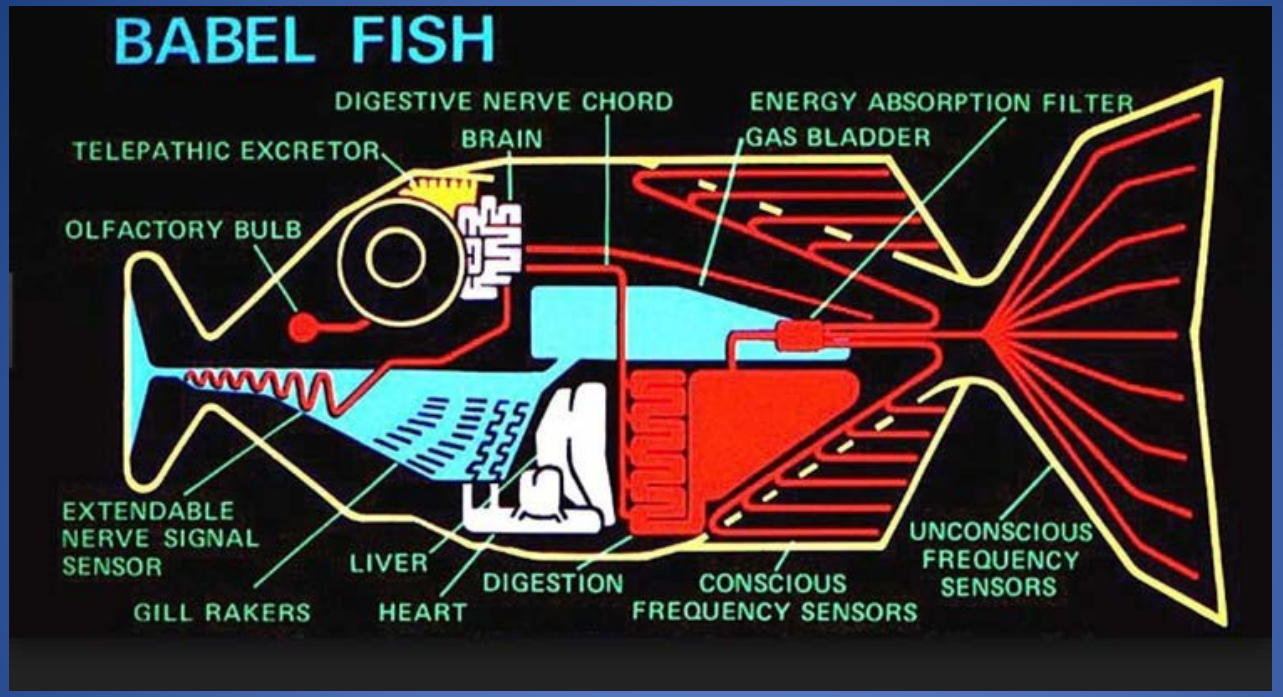
Engaging Clinicians in coding

Dr Donald Richardson
York Teaching Hospitals NHS FT

Coding

- Coders are from Pluto & Clinicians are from Mercury!

- How do we get to share a language?
  - Make it useful
  - Use it to improve care processes
  - Link up as much data as we can



Coding: Somebody else’s problem!

To make it reliable…

Make it easy and useful

80:20 RULE

- 6 months data on discharges
- Ordered by frequency
- Top 850/>5500 accounted for ~80%
- Convert to clinical language
  - linked to ICD-10 code in the background
- Acute diagnoses
- Chronic diagnoses

Clinicians language

Diabetes team

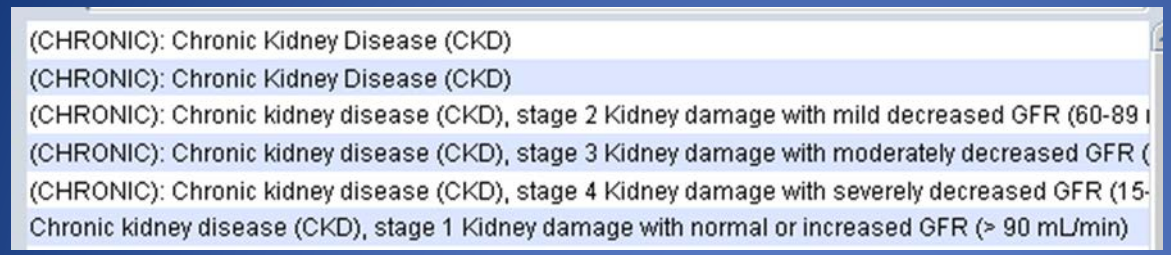
(CHRONIC): Diabetes Type 2 (Ketone Prone)
(CHRONIC): Diabetes insipidus (neurogenic)
(CHRONIC): Glomerular disorders in diabetes mellitus
(CHRONIC): Type 1 Diabetes
(CHRONIC): Type 1 diabetes mellitus With ophthalmic complications
(CHRONIC): Type 1 diabetes with ketoacidosis
(CHRONIC): Type 2 Diabetes
(CHRONIC): Type 2 diabetes mellitus With neurological complications
(CHRONIC): Type 2 diabetes mellitus With ophthalmic complications
(CHRONIC): Type 2 diabetes mellitus With peripheral circulatory complications
Diabetes Type 1 with complications
Diabetes Type 2 with complications
Diabetes insipidus (nephrogenic)
Gestational diabetes
Type 1 diabetes with ketoacidosis and coma

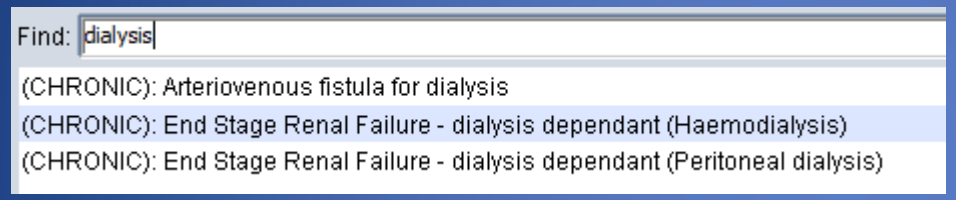
Use the following criteria to search for patients....

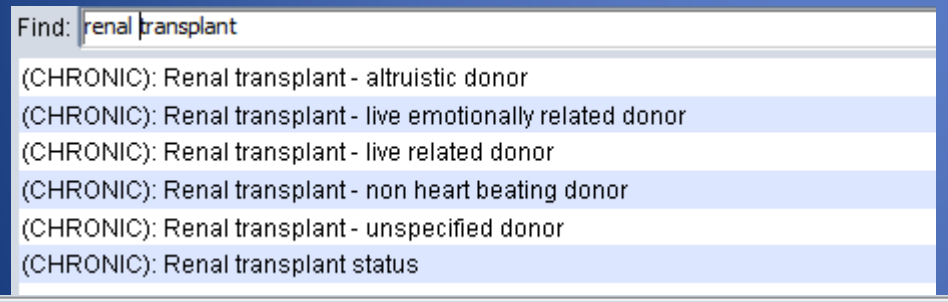
Ticking these boxes will show patients that meet EITHER criteria.
For example, selecting "Admitted within last 4 hours" and "Flagged for Critical Care Outreach" will display all patients admitted in last 4 hours AND all the patients flagged

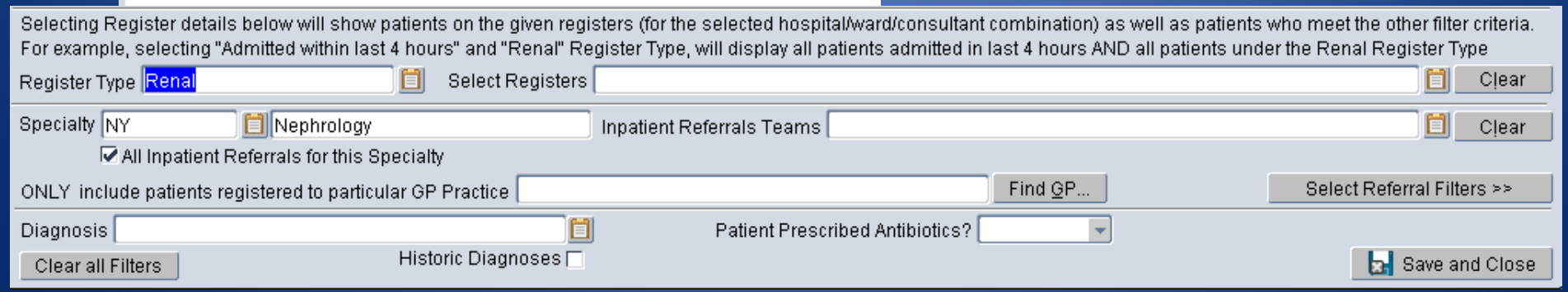
☐ Flagged for Critical Care Outreach	☐ Flagged for Acute Pain Audit	☐ Observations Due	☐ At Risk OBS
☑ Chronic Diabetes	☐ Blood Sugar Due	☑ High Risk Blood Sugar Level (Current)	☐ High Risk Blood Sugar Level (48 Hours)
☐ Category 2-4 / Unstageable Skin	☐ Very High Risk Nutrition Score (>=5)	☐ Cannula Inserted ☐ Cannula Check Overdue	☐ SCR Needs Uploading
☐ Section 2 Notifications	☐ Section 5 Notifications	☐ AKI Incomplete	☐ Severe Sepsis

Renal Team

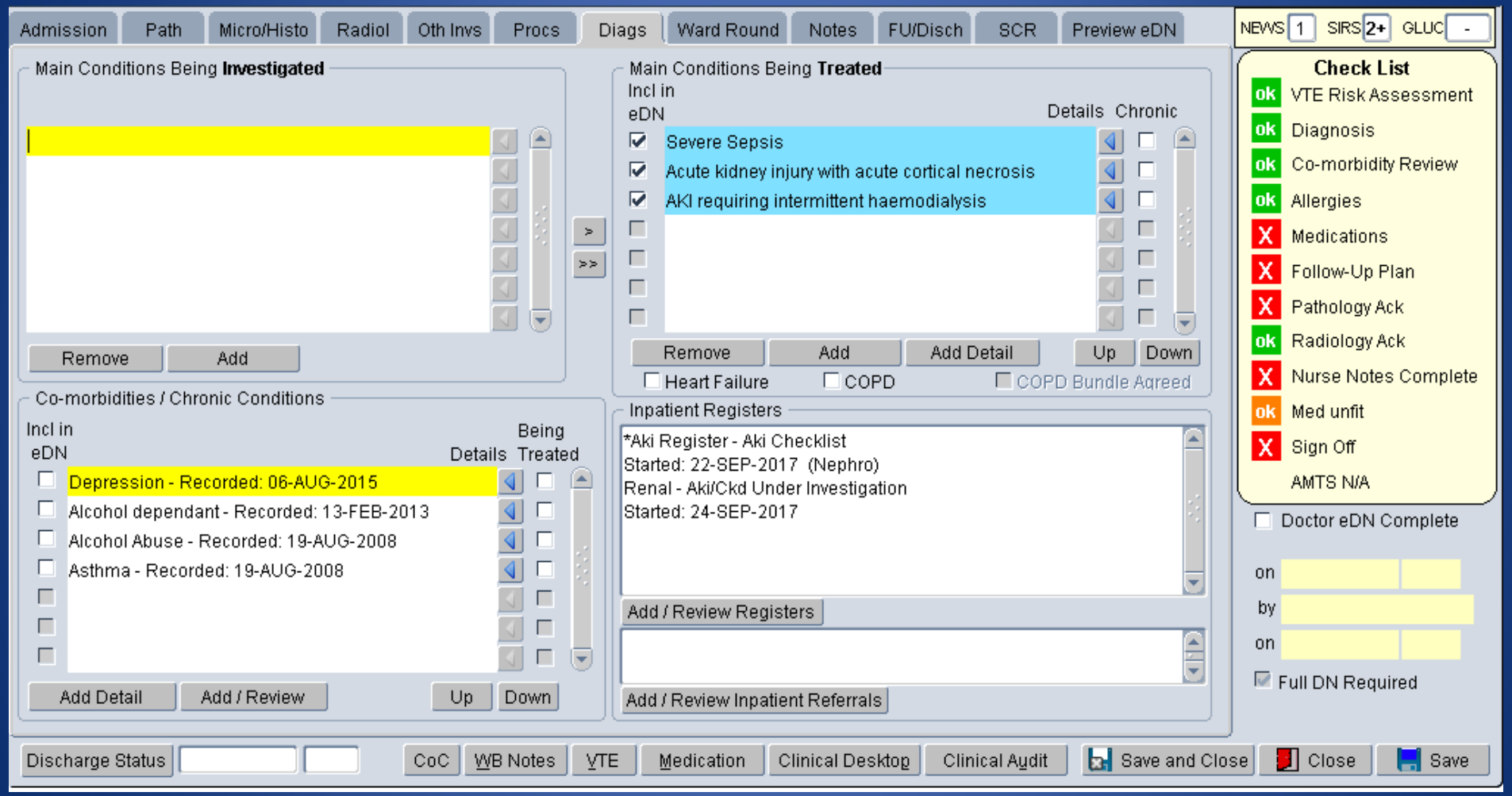

(CHRONIC): Chronic Kidney Disease (CKD)
(CHRONIC): Chronic Kidney Disease (CKD)
(CHRONIC): Chronic kidney disease (CKD), stage 2 Kidney damage with mild decreased GFR (60-89
(CHRONIC): Chronic kidney disease (CKD), stage 3 Kidney damage with moderately decreased GFR (
(CHRONIC): Chronic kidney disease (CKD), stage 4 Kidney damage with severely decreased GFR (15-
Chronic kidney disease (CKD), stage 1 Kidney damage with normal or increased GFR (> 90 mL/min)


Find: dialysis
(CHRONIC): Arteriovenous fistula for dialysis
(CHRONIC): End Stage Renal Failure - dialysis dependant (Haemodialysis)
(CHRONIC): End Stage Renal Failure - dialysis dependant (Peritoneal dialysis)

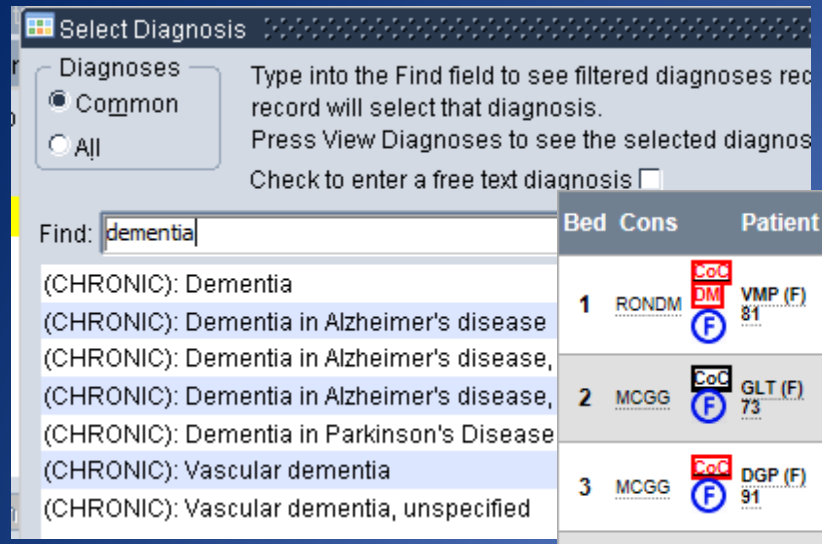

Find: renal transplant
(CHRONIC): Renal transplant - altruistic donor
(CHRONIC): Renal transplant - live emotionally related donor
(CHRONIC): Renal transplant - live related donor
(CHRONIC): Renal transplant - non heart beating donor
(CHRONIC): Renal transplant - unspecified donor
(CHRONIC): Renal transplant status


Selecting Register details below will show patients on the given registers (for the selected hospital/ward/consultant combination) as well as patients who meet the other filter criteria.
For example, selecting "Admitted within last 4 hours" and "Renal" Register Type, will display all patients admitted in last 4 hours AND all patients under the Renal Register Type
Register Type Renal
Select Registers
Clear
Specialty NY
Nephrology
Inpatient Referrals Teams
Clear
All Inpatient Referrals for this Specialty
ONLY include patients registered to particular GP Practice
Find GP...
Select Referral Filters >>
Diagnosis
Patient Prescribed Antibiotics?
Clear all Filters
Historic Diagnoses
Save and Close

Renal 2


Admission
Path
Micro/Histo
Radiol
Oth Invs
Procs
Diags
Ward Round
Notes
FU/Disch
SCR
Preview eDN
NEWS 1
SIRS 2+
GLUC -
Main Conditions Being Investigated
Remove
Add
Main Conditions Being Treated
Incl in eDN
Details
Chronic
Severe Sepsis
Acute kidney injury with acute cortical necrosis
AKI requiring intermittent haemodialysis
Remove
Add
Add Detail
Up
Down
Heart Failure
COPD
COPD Bundle Agreed
Co-morbidities / Chronic Conditions
Incl in eDN
Details
Being Treated
Depression - Recorded: 06-AUG-2015
Alcohol dependant - Recorded: 13-FEB-2013
Alcohol Abuse - Recorded: 19-AUG-2008
Asthma - Recorded: 19-AUG-2008
Add Detail
Add / Review
Up
Down
Inpatient Registers
*Aki Register - Aki Checklist
Started: 22-SEP-2017 (Nephro)
Renal - Aki/Ckd Under Investigation
Started: 24-SEP-2017
Add / Review Registers
Add / Review Inpatient Referrals
Check List
ok VTE Risk Assessment
ok Diagnosis
ok Co-morbidity Review
ok Allergies
X Medications
X Follow-Up Plan
X Pathology Ack
ok Radiology Ack
X Nurse Notes Complete
ok Med unfit
X Sign Off
AMTS N/A
Doctor eDN Complete
on
by
on
Full DN Required
Discharge Status
CoC
WB Notes
VTE
Medication
Clinical Desktop
Clinical Audit
Save and Close
Close
Save

Dementia flag for Board rounds on wards – also excludes requirements for AMTS assessment



Bed	Cons	Patient	OBS	Glu	Nut	Wat	Fal	Can	Clerk Stat	Path	Rad	VTE Done	Allergy Done	AMTS Done	Dx Done	TTO Done	eDN Done	Status
1	RONDM	VMP (F) 81	0	6.7	1	28		0	✓	✓	Img	✓		✓	✓	✓	P	LoS: 10
2	MCGG	GLT (F) 73	3		0	15		0	✓	Rep 93h 3m	✓	✓		N/A	✓			LoS: 8
3	MCGG	DGP (F) 91	✖		10	19		0	✓	✓	Req	✓		✓	✓	✓	✓	LoS: 31
4	RONDM	AW (F) 90	1		5	10		1	✓	✓	✓	✓		✓	✓			LoS: 3
5	RONDM	PWR (F) 81	2		1	16		1	✓	✓	✓	✓		N/A	✓			LoS: 10
6	MCGG	MB (F) 87	0		5	22		0	✓	✓	✓	✓	✓	✓	✓	✓	✖	LoS: 8
7	MCGG	JC (F) 91	3		2	15		0	✓	✓	✓	✓		✓	✓	✓	✓	LoS: 19
8	RONDM	LG (F) 95	7		2	18		1	✓	✓	✓	✓		✓	✓			LoS: 3
9	KESS	JL (F) 88	2	4.3	2	10		0	✓	✓	Img Rep 1h 5m	✓		✓	✓			LoS: 2
10	MCGG	LAF (F) 86	2	6.1	6	18		1	✓	Rep 69h 20m	Sch	✓		✓	✓			LoS: 34
11	HARMX	EMG (F) 89	1		2	15		0	✓	Rep 49h 35m	✓	✓		✓	✓			LoS: 3
12	ALIJA	SMH (F) 80	0		1	19		1	✓	Rep 49h 49m	Img	✓		✓	✓			LoS: 5
13	MCGG	MFS (F) 83	0	6.4	4	17		1	✓	Rep 49h 18m	Img	✓		✓	✓			LoS: 6

Automate to use data collated elsewhere

- AKI
- Sepsis
- Severe Sepsis
- Diabetes
  - Type 1
  - Type 2
  - ‘Brittle’
  - Ketone prone

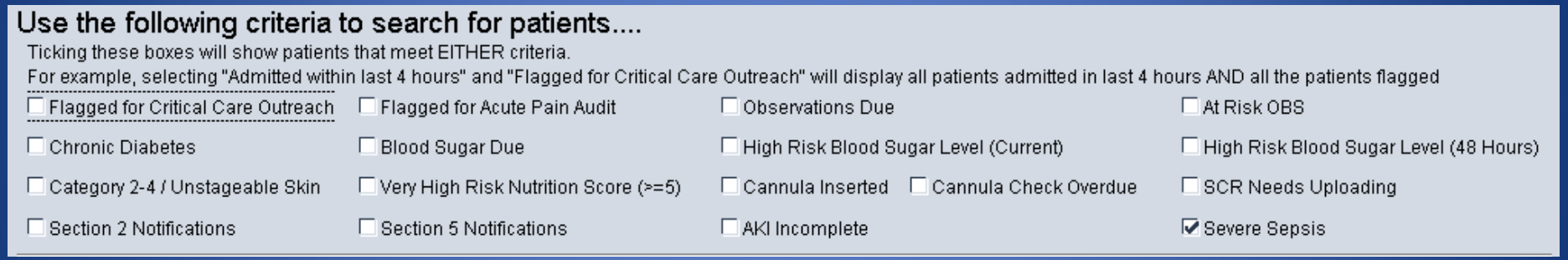
- Sepsis screen
- AKI alert
- Diabetes alert
- ECHO

Sepsis

NEWS Score = 10 (as at 09-Oct-2017 00:50)
0 Temperature between 36 and 38 C 37 C
1 Heart Rate > 90/min 140 /min
1 Respiratory Rate > 20/min 22 /min
0 NOT acutely altered Mental State Alert
? WCC > 12 x 109/L in last 6 hours Yes No No Result
? WCC < 4 x 109/L in last 6 hours Yes No No Result
0 Enter Blood Glucose (mmol/L) High (>33.3) Diabetic
SIRS Score = 2 (+)
Could they have an infection? Yes No Don't Know
Currently treating for Severe Sepsis? Yes No Don't Know
Outcome:
Patient currently being treated for Severe Sepsis - Checklist is not required.
Screening is complete
SEVERE Sepsis Checklist Yes No No Result
Lactate > 2.5 mmol/L
Urine Output < 0.5 mL/kg/hr for 2 hours or has an AKI Alert
Systolic BP < 90 mmHg (or decrease in patient's normal Systolic BP > 40 mmHg)
New need for oxygen to keep SpO2 > 90 %
INR > 1.5 or APTT > 60s
Platelets < 100 x 109/L, Billirubin > 34 umol/L
Outcome:
Patient currently being treated for Severe Sepsis - Checklist is not required.
Screening is complete
View Obs
View Orders
Order Sepsis Bloods
View Results
Save and Close
Close
Save

Critical care outreach / Microbiologists

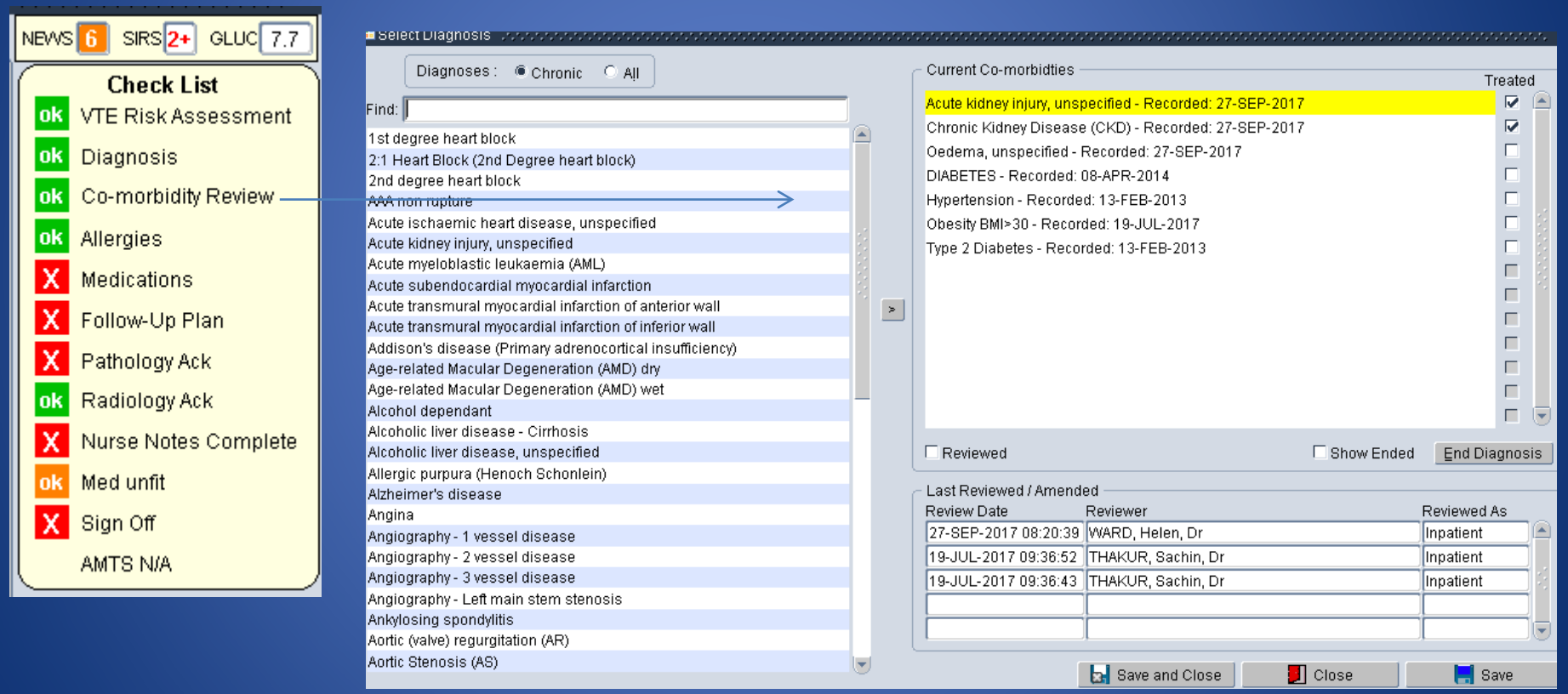
- View of Hospital possible for all with severe sepsis of High NEW score



Chronic Conditions

- Co-morbidity diagnoses
- Reviewed each admission
- Any newly entered chronic conditions pull through
  - In order to improve care!

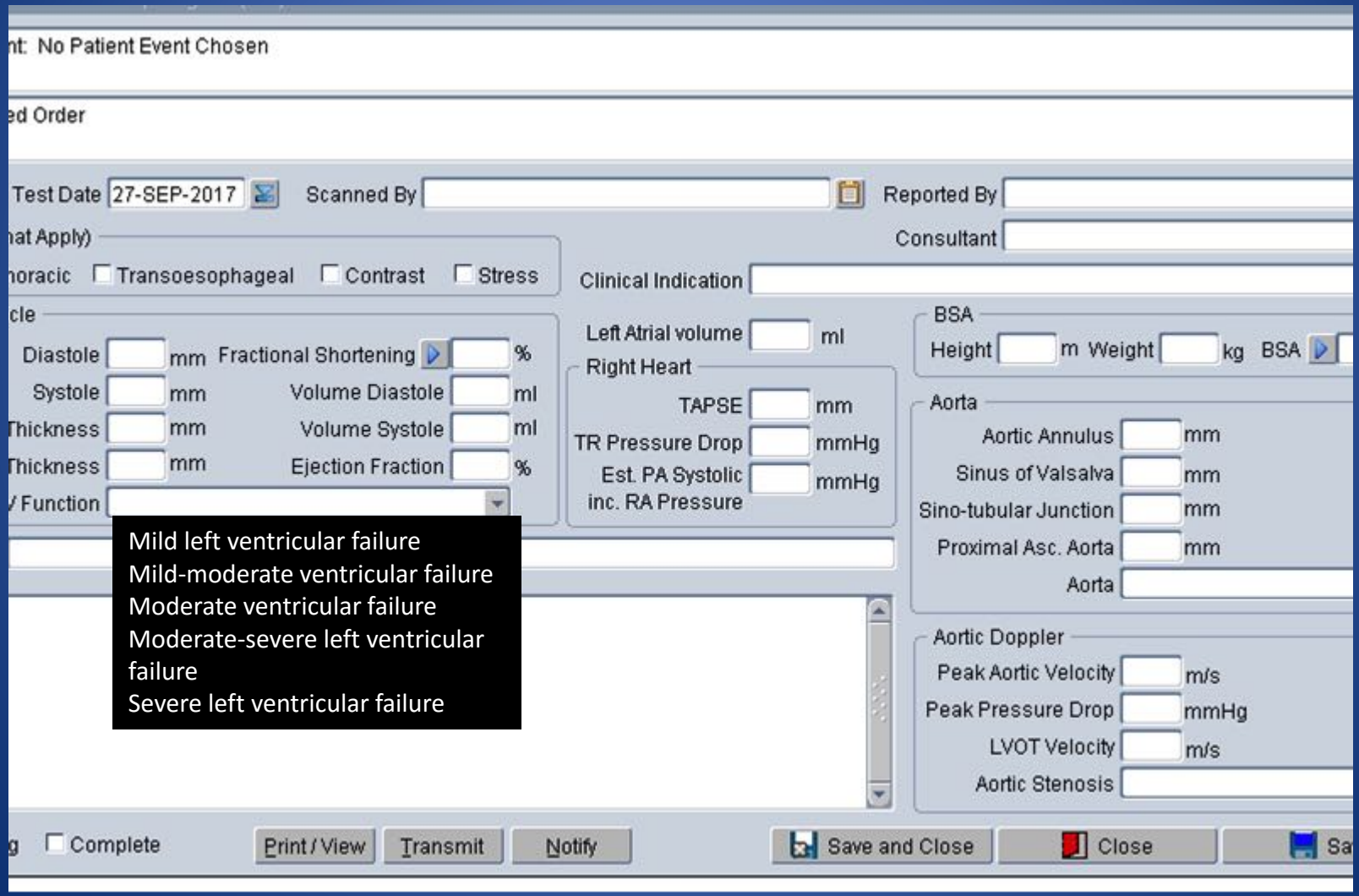
Co-morbidity review

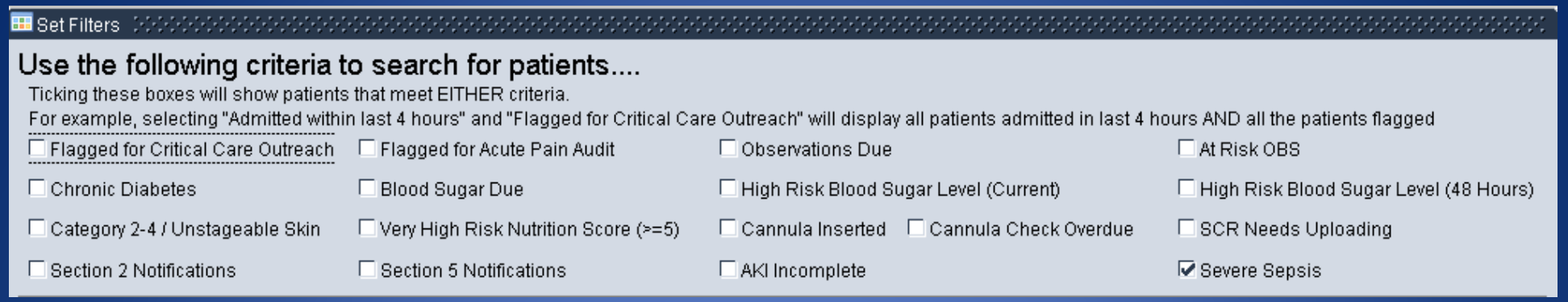


Chronic conditions linked to care processes

- COPD
- Heart Failure
  - Echo
  - Manual flag
- ESRF
  - Dialysis
  - Renal transplant
- Learning difficulties
- Parkinson’s
- Dementia
- Vasculitis

Echo LVF HFSN




Set Filters
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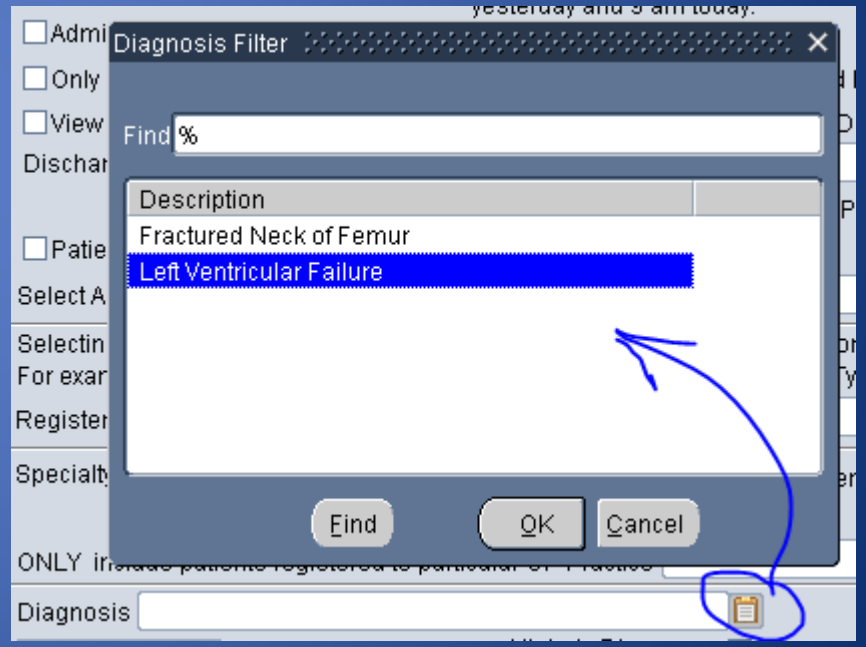
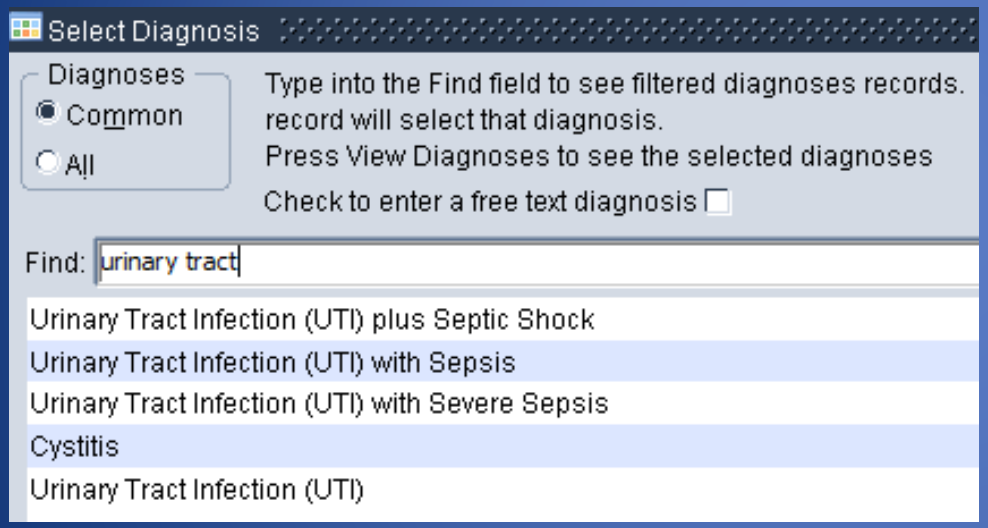
Flagged for Critical Care Outreach
Flagged for Acute Pain Audit
Observations Due
At Risk OBS
Chronic Diabetes
Blood Sugar Due
High Risk Blood Sugar Level (Current)
High Risk Blood Sugar Level (48 Hours)
Category 2-4 / Unstageable Skin
Very High Risk Nutrition Score (>=5)
Cannula Inserted
Cannula Check Overdue
SCR Needs Uploading
Section 2 Notifications
Section 5 Notifications
AKI Incomplete
Severe Sepsis


Diagnosis Filter
Find %
Description
Fractured Neck of Femur
Left Ventricular Failure
Find
OK
Cancel
Diagnosis

High adjusted mortality



Not finished

- Iterative process
- Ongoing feedback from specialties
- Linking procedures to chronic diagnoses
- Linking Acute diagnoses to ongoing chronic diagnoses
- Thanks to CHKS for the invite
  - It has re-invigorated our efforts!

THANK YOU

QUESTIONS?