Q1

Summary Data for **Patient 42130**

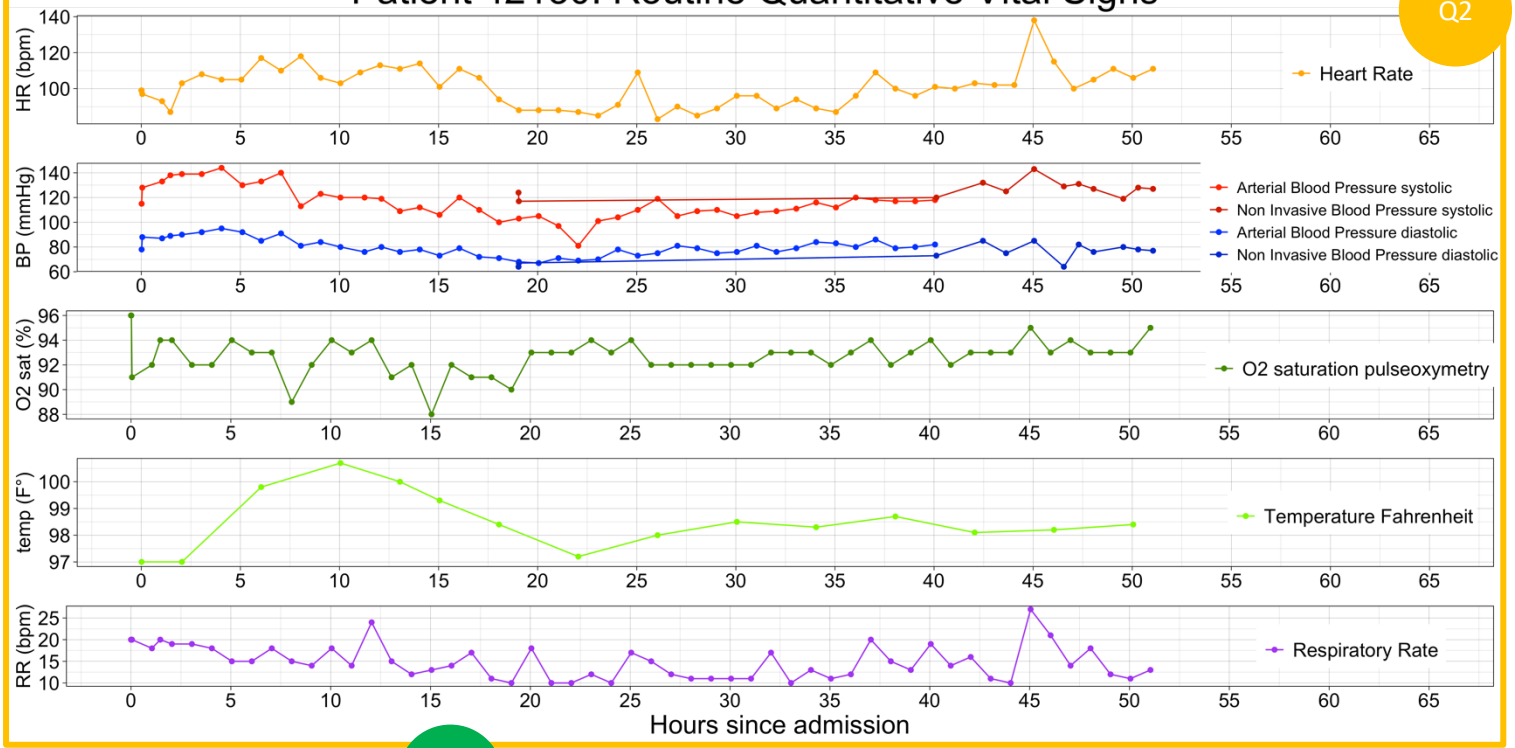
Most Recent Visit Where Simvastatin was Prescribed

Demographics						Length of Stay (days)		
Gender	Age at Admission	Language	Religion	Marital Status	Ethnicity	Hospital Admission	All ICU Visits	Wards Visited
M	63	ENGL	NOT SPECIFIED	MARRIED	WHITE	4.26	2.16	14 (TSICU) | 27 | 31

Diagnoses	Prescriptions
Benign neoplasm of cerebral meninges (2252) | Unspecified essential hypertension (4019) | Atrial fibrillation (42731) | Personal history of malignant neoplasm of prostate (V1046) | Cardiac pacemaker in situ (V4501) | Long-term (current) use of anticoagulants (V5861)	0.83% Sodium Chloride | 0.9% Sodium Chloride | 5% Dextrose | Acetaminophen | Bag | Bisacodyl | Calcium Gluconate | CefazoLIN | Dexamethasone | Dextrose 50% | Docusate Sodium | Glucagon | Heparin | HydrALAzine | Influenza Virus Vaccine | Insulin | LeVETiracetam | Magnesium Sulfate | Metoprolol Succinate XL | Metoprolol Tartrate | Morphine Sulfate | Neutra-Phos | NiCARdipine IV | Ondansetron | OxycoDONE (Immediate Release) | Pantoprazole | Potassium Chloride | SW | Senna | Simvastatin | Sodium Chloride 0.9% Flush | Valsartan | Vial

Q2

Patient 42130: Routine Quantitative Vital Signs



Q3

Visit Length for Similar* Patients

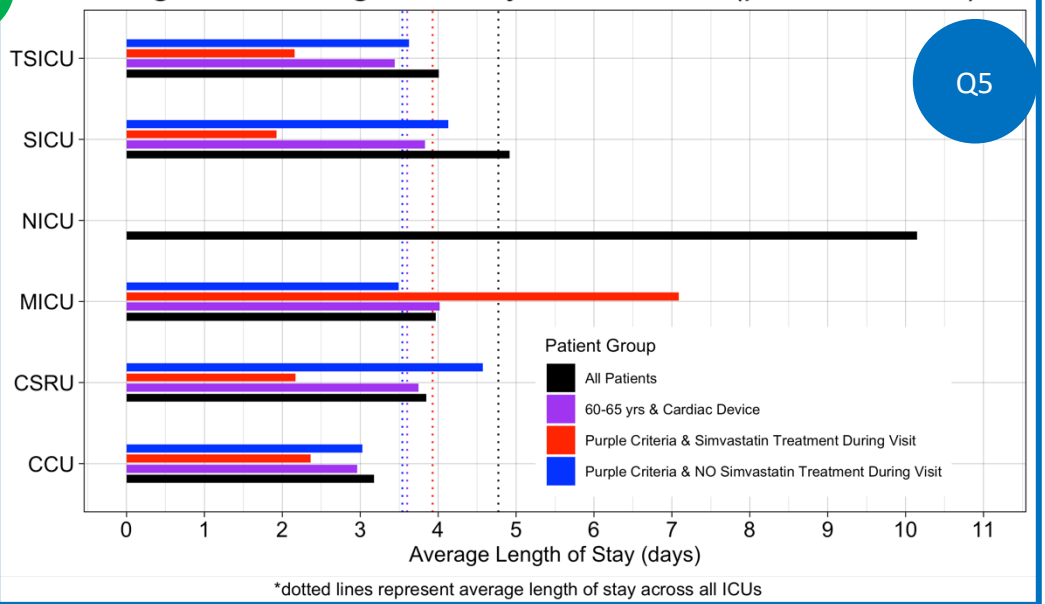
*60-65 & Cardiac Device

Patient Group		Total Length of Stay in Hospital (days)				
Gender	Died in ICU	Min	Q1	Median	Q3	Max
F	FALSE	0.98	6.62	9.00	14.82	44.92
F	TRUE	0.56	0.80	1.45	5.78	10.73
M	FALSE	0.91	4.38	6.65	10.35	35.94
M	TRUE	0.19	2.74	6.44	7.62	13.25

Patient Group		Total Length of Stay in ICU (days)				
Gender	Died in ICU	Min	Q1	Median	Q3	Max
F	FALSE	0.74	1.80	3.75	6.54	30.15
F	TRUE	0.68	0.86	1.55	5.90	10.81
M	FALSE	0.59	1.42	2.25	4.09	35.94
M	TRUE	0.87	2.82	3.99	5.64	10.40

Q5

Average Total Length of Stay in each ICU (per admission)



*dotted lines represent average length of stay across all ICUs

Q4

Summary Data for ALL Patients who Died in the ICU and were 60-65 yrs with a Cardiac Device

Subject ID	First Careunit	Sex	Age	Days in ICU	Top Priority ICD9 Diagnoses/Codes
2338	MICU	M	62	7.45	Methicillin susceptible Staphylococcus aureus septicemia (03811), Septic shock (78552), Acute kidney failure with lesion of tubular necrosis (5845)
7695	CCU	M	64	3.36	Acute kidney failure, unspecified (5849), Acute on chronic systolic heart failure (42823), Paroxysmal ventricular tachycardia (4271)
8389	CCU	M	64	5.84	Closed fracture of unspecified part of neck of femur (8208), Anoxic brain damage (3481)
15759	CCU	F	64	0.80	Paroxysmal ventricular tachycardia (4271), Cardiogenic shock (78551), Congestive heart failure, unspecified (4280)
21302	CCU	M	65	5.58	Acute kidney failure, unspecified (5849), Rheumatic heart failure (congestive) (39891), Mitral valve insufficiency and aortic valve stenosis (3962)
27585	MICU	F	62	10.81	Unspecified septicemia (0389), Acute respiratory failure (51881), Septic shock (78552)
31381	MICU	M	62	3.05	Malignant neoplasm of liver, primary (1550), Acute and subacute necrosis of liver (570), Chronic hepatitis C with hepatic coma (07044)
32618	MICU	M	62	4.63	Pneumonia, organism unspecified (486), Acute respiratory failure (51881), Congestive heart failure, unspecified (4280)
40999	SICU	F	65	2.04	Intracerebral hemorrhage (431), Pneumonitis due to inhalation of food or vomitus (5070), Malignant essential hypertension (4010)
52631	MICU	F	60	7.19	Unspecified septicemia (0389), Perforation of intestine (56983), End stage renal disease (5856)
59085	CCU	M	60	0.88	Paroxysmal ventricular tachycardia (4271), Acute respiratory failure (51881), Other primary cardiomyopathies (4254)
68221	MICU	F	60	1.05	Pneumonitis due to inhalation of food or vomitus (5070), Acute respiratory failure (51881), Hyposmolality and/or hyponatremia (2761)
74686	MICU	M	65	5.21	Encounter for antineoplastic chemotherapy (V5811), Pneumonitis due to other solids and liquids (5078), Other drugs and medicinal substances causing adverse effects in therapeutic use (E9478)
76035	CCU	M	62	3.07	Acute myocardial infarction of inferoposterior wall, initial episode of care (41031), Acute systolic heart failure (42821), Cardiac arrest (4275)
89758	CCU	M	61	2.12	Unspecified septicemia (0389), Acute and subacute necrosis of liver (570), Septic shock (78552)
96591	MICU	M	63	2.28	Intracerebral hemorrhage (431), Acute respiratory failure (51881), End stage renal disease (5856)
98336	CCU	F	60	0.68	Paroxysmal ventricular tachycardia (4271), Acute respiratory failure (51881), Acidosis (2762)
98525	SICU	M	64	1.51	Malignant neoplasm of cecum (1534), Acute and subacute necrosis of liver (570), Other specified septicemias (0388)

NOTES:

Q2) >15 distinct item_ids for this visit fell under the category of "Routine Vital Signs" (as listed in d_items in the MIMIC-iii database). Some routine vitals (e.g., respiratory rate) were not categorised as routine vital signs. I decided to use only the 6 vital signs above to keep the report concise. Several doctors confirmed that these were the most commonly used vital signs in clinical settings.

Q3) Patients can enter and leave the ICU many times within a single hospital admission. If a patient had a date of death (dod) within 6 hours of entering/leaving the ICU, during any ICU visit within a given hospital admission, they were classified as dying in the ICU during that hospital admission. This means that if a male went to the ICU 3 times on a given admission and died in the ICU on their last visit, all of their ICU visit times would be added together and this total ICU visit time would be considered as a datapoint in the 'male, died in icu' data.

Q4) In this case, I am summarising the ICU stay corresponding with death, NOT the hospital admission stay. So, if a patient died on their 3rd ICU visit within a given hospital admission, the "first care unit" listed is from their 3rd ICU visit. Consistent with this, "days in ICU" refers only to the length of stay of the ICU visit corresponding with death. On the other hand, diagnoses associated with the patient's entire hospital admission are listed, because the diagnoses_icd MIMIC-iii table does not link diagnoses to unique icustay_ids, only to unique hadm_ids. I have only listed the top three highest priority icd9 codes (as determined by their seq_num in the diagnoses_icd table) associated with the patient's admission for the sake of brevity (most patients have more than 20 codes associated with their visit).

Q5) I have interpreted this question to be asking about the subset of patients – who are 60-65 & have a cardiac device – that either HAVE or HAVE NOT been given simvastatin during their visit. An alternative interpretation might be to separately look at the subsets of ALL patients (regardless of age/cardiac device status) that either HAVE or HAVE NOT been given simvastatin.