**PMAH**

phah\_combined=phah\_combined[~phah\_combined['SECTION\_CODE'].isin(['CARM','IR'])]

phah\_combined=phah\_combined[~phah\_combined['WORKPLACE\_CODE'].isin(['US-IR'])]

phah\_combined=phah\_combined[~phah\_combined['PROCEDURE\_STATUS\_LONG'].isin(['del'])]

phah\_combined=phah\_combined[~phah\_combined['PROCEDURE\_NAME'].str.contains('dental',case=False)]

phah\_combined.loc[(phah\_combined['SECTION\_CODE']=='BII')&(phah\_combined['PROCEDURE\_NAME'].str.contains('Mammogram')),'SECTION\_CODE']="Mamo"

phah\_combined.loc[(phah\_combined['SECTION\_CODE']=='BII')&(phah\_combined['PROCEDURE\_NAME'].str.contains('MA ')),'SECTION\_CODE']="Mamo"

phah\_combined.loc[(phah\_combined['SECTION\_CODE']=='NM')&(phah\_combined['PROCEDURE\_NAME'].str.contains('BMD ')),'SECTION\_CODE']="X-Ray (BMD)"

phah\_combined.loc[phah\_combined['SECTION\_CODE']=='NM','SECTION\_CODE']="Other NM"

phah\_combined.loc[phah\_combined['SECTION\_CODE']=='RF','SECTION\_CODE']="X-Ray (Fluoro)"# need more about carm in RF

phah\_combined.loc[(phah\_combined['SECTION\_CODE']=='XRAY'),'SECTION\_CODE']="X-Ray"

**KFMC**

kfmc['contract\_modality'] = "Null"

kfmc.loc[kfmc['Category'].str.contains('CV'),'contract\_modality']="US"

kfmc.loc[kfmc['Category'].str.contains('BI'),'contract\_modality']="Mamo"

kfmc.loc[(kfmc['Category'].str.contains('IR')),'contract\_modality']="IR"

kfmc.loc[(kfmc['Category'].str.contains('IR'))&(kfmc['Modality'].str.contains(' CT ')),'contract\_modality']="CT"

kfmc.loc[(kfmc['Category'].str.contains('IR'))&(kfmc['Modality'].str.contains(' Fluoro ')),'contract\_modality']="X-Ray (Fluoro)"

kfmc = kfmc[~kfmc.Procedure.str.contains('CONSULTATION',case=False)]

kfmc = kfmc[((kfmc['contract\_modality'] != 'IR'))]

kfmc = kfmc[~kfmc['Category'] .str.contains( ' OB ')]

kfmc.loc[kfmc['Category'].str.contains('DXA'),'contract\_modality']="X-Ray (BMD)"

kfmc.loc[kfmc['Category'].str.contains('FLUOROSCOPY'),'contract\_modality']="X-Ray (Fluoro)"

#kfmc.loc[(kfmc['Category'].str.contains('IR'))&(kfmc['Procedure'].str.contains(' CT ')),'contract\_modality']="CT"

kfmc.loc[kfmc['Category'].str.contains('CT'),'contract\_modality']="CT"

kfmc.loc[kfmc['Category'].str.contains('MRI'),'contract\_modality']="MRI"

kfmc.loc[(kfmc['Category'].str.contains('NM'))&(kfmc['Procedure'].str.contains('PET')),'contract\_modality']="PET-CT"

kfmc.loc[(kfmc['Category'].str.contains('NM'))&(kfmc['contract\_modality']=='Null'),'contract\_modality']="Other NM"

kfmc.loc[kfmc['Category']=='IMG US PROCEDURES','contract\_modality']="US"

kfmc.loc[kfmc['Category']=='IMG XR PROCEDURES','contract\_modality']="X-Ray"

##############outside

kfmc.loc[(kfmc['Procedure'].str.contains('OUTSIDE',case=False))&(kfmc['Procedure'].str.contains('CT')),'contract\_modality']="CT"

kfmc.loc[(kfmc['Procedure'].str.contains('OUTSIDE',case=False))&(kfmc['Procedure'].str.contains('ULTRASOUND')),'contract\_modality']="US"

kfmc.loc[(kfmc['Procedure'].str.contains('OUTSIDE',case=False))&(kfmc['Procedure'].str.contains('PET ')),'contract\_modality']="PET-CT"

kfmc.loc[(kfmc['Procedure'].str.contains('OUTSIDE',case=False))&(kfmc['Procedure'].str.contains('VOIDING ')),'contract\_modality']="X-Ray (Fluoro)"

kfmc.loc[(kfmc['Procedure'].str.contains('OUTSIDE',case=False))&(kfmc['Procedure'].str.contains('BARIUM ')),'contract\_modality']="X-Ray (Fluoro)"

kfmc.loc[(kfmc['Procedure'].str.contains('OUTSIDE',case=False))&(kfmc['Procedure'].str.contains('X-RAY')),'contract\_modality']="X-Ray"

kfmc.loc[(kfmc['Procedure'].str.contains('OUTSIDE',case=False))&(kfmc['Procedure'].str.contains('NM ')),'contract\_modality']="Other NM"

kfmc.loc[(kfmc['Procedure'].str.contains('OUTSIDE',case=False))&(kfmc['Procedure'].str.contains('BONE SCAN')),'contract\_modality']="Other NM"

kfmc.loc[(kfmc['Procedure'].str.contains('OUTSIDE',case=False))&(kfmc['Procedure'].str.contains('NUCLEAR')),'contract\_modality']="Other NM"

kfmc.loc[(kfmc['Procedure'].str.contains('OUTSIDE',case=False))&(kfmc['Procedure'].str.contains('MAMMOGRAM')),'contract\_modality']="Mamo"

kfmc.loc[(kfmc['Procedure'].str.contains('OUTSIDE',case=False))&(kfmc['Procedure'].str.contains('MRI ', case=False)),'contract\_modality']="MRI"

kfmc=kfmc[~kfmc['Procedure'].str.contains('ANGIOGRAM DONE OUTSIDE')]

**ALYamah**

alyma\_combined=alyma\_combined.loc[alyma\_combined['PAT\_FIRST\_NAME']!='Test']

alyma\_combined=alyma\_combined.loc[alyma\_combined['PROCEDURE\_STATUS\_LONG']!='del']

alyma\_combined.loc[(alyma\_combined['SECTION\_CODE']=='YAMMG'),'SECTION\_CODE']="Mamo"

alyma\_combined.loc[alyma\_combined['SECTION\_CODE']=='YAMCT','SECTION\_CODE']="CT"

alyma\_combined.loc[alyma\_combined['SECTION\_CODE']=='YAMUS','SECTION\_CODE']="US"

alyma\_combined.loc[alyma\_combined['SECTION\_CODE']=='YAMMR','SECTION\_CODE']="MRI"

alyma\_combined.loc[alyma\_combined['SECTION\_CODE']=='YAMRF','SECTION\_CODE']="X-Ray (Fluoro)"# need more about carm in RF

alyma\_combined.loc[(alyma\_combined['SECTION\_CODE']=='YAMXR'),'SECTION\_CODE']="X-Ray"

**ALartwiah**

alartwiah.loc[alartwiah['Mod.']=='DX','contract\_modality']="X-Ray"

alartwiah.loc[alartwiah['Mod.']=='CR','contract\_modality']="X-Ray"

alartwiah.loc[alartwiah['Mod.']=='CT','contract\_modality']="CT"

**Dwadme**

dwadme.loc[dwadme['Modality type']=='MG','Modality type']="Mamo"

dwadme.loc[dwadme['Modality type']=='MR','Modality type']="MRI"

dwadme.loc[dwadme['Modality type']=='DX','Modality type']="X-Ray"

dwadme.loc[dwadme['Modality type']=='RF','Modality type']="X-Ray (Fluoro)"

dwadme.loc[dwadme['Modality type']=='BMD','Modality type']="X-Ray (BMD)"

dwadme.loc[dwadme['Modality type'].str.contains('CT'),'Modality type']="CT"

dwadme.loc[dwadme['Modality type'].str.contains('CR'),'Modality type']="X-Ray"

**Zulfi**

zulfi.loc[zulfi['Modality type']=='MG','Modality type']="Mamo"

zulfi.loc[zulfi['Modality type']=='MR','Modality type']="MRI"

zulfi.loc[zulfi['Modality type'].str.contains('DX'),'Modality type']="X-Ray"

zulfi.loc[zulfi['Modality type']=='CR','Modality type']="X-Ray"

zulfi.loc[zulfi['Modality type'].str.contains('RF'),'Modality type']="X-Ray (Fluoro)"

zulfi.loc[zulfi['Procedure name']=='Hysterosalpingogram','Modality type']="X-Ray (Fluoro)"

zulfi.loc[zulfi['Modality type']=='BMD','Modality type']="X-Ray (BMD)"

**Majmah**

majmmah.loc[majmmah['Modality type']=='MG','Modality type']="Mamo"

majmmah.loc[majmmah['Modality type']=='MR','Modality type']="MRI"

majmmah.loc[majmmah['Modality type'].str.contains('BMD'),'Modality type']="X-Ray (BMD)"

majmmah.loc[majmmah['Modality type'].str.contains('DX'),'Modality type']="X-Ray"

majmmah.loc[majmmah['Modality type'].str.contains('CR'),'Modality type']="X-Ray"

majmmah.loc[majmmah['Modality type'].str.contains('RF'),'Modality type']="X-Ray (Fluoro)"