

## 13\_Word\_Frequency\_&\_Vector

August 22, 2017

```
In [1]: import os
        from string import punctuation
        import pandas as pd
        import numpy as np
        import nltk
        from nltk.tokenize import RegexpTokenizer
        from nltk.stem.wordnet import WordNetLemmatizer

In [2]: df_temp = pd.read_excel('2_foidev_column_full_list_standardized.xlsx', sheetname='foidev')
        temp = list(df_temp['Standardized term'])
        temp = list(set(temp))
        temp.remove(np.nan)
        temp.remove('UNK')
        manufacturer = []
        for i in temp:
            i = i.upper()
            i = i.replace(' CORP.', '').replace(' CORPORATION', '').replace(' LTD', '')\
                .replace(' INC.', '').replace(', INC.', '').replace(' INCORPORATED', '').strip()
            manufacturer.append(i)
        print(i)
        del df_temp, temp
```

```
ALLEGIANCE HEALTHCARE
NAGOR
MEDICAL ENGINEERING
COX-UPHOFF INTERNATIONAL
POLY IMPLANT PROTHESE
SILIMED
SIENTRA
ALLERGAN
BAXTER HEALTHCARE
MEDICAL ENGINEERING CORPORATION
EUROMED
HUTCHISON INTERNATIONAL
NATURAL Y SURGICAL SPECIALTIES
MCGHAN
BIOPLASTY
```

BIOSIL  
 INAMED  
 PMT  
 MENTOR  
 IDEAL IMPLANT  
 DOW CORNING

```

In [3]: fill_type = ['SALINE', 'SILICONE', 'GEL', 'COHESIVE']
        surface_type = ['SMOOTH', 'TEXTURED', 'BIOCELL', 'MICROCELL', 'POLYURETHANE']
        implantation_indication = ['AUGMENTATION', 'RECONSTRUCTION', 'COSMETIC', 'REVISION']
        ALCL = ['ALCL', 'ANAPLASTIC LARGE CELL LYMPHOMA', 'LYMPHOMA', 'T-CELL LYMPHOMA', 'B-CELL LYMPHOMA', 'CANCER', 'TUMOR', 'SUSPECT', 'CONFIRM']
        side = ['LEFT', 'RIGHT', 'BILATERAL', 'BOTH SIDES']
        biomarker = ['CD 30', 'ALK', 'NEGATIVE', 'POSITIVE', 'CD30-', 'CD30+', 'ALK-', 'ALK+']
        symptom = ['breast pain', 'breast swelling', 'breast cyst', 'breast calcification', 'cancer', 'lymph node enlargement', 'firmness of breast', 'hematoma', 'mass', 'lump', 'infection', 'abscess', 'leukopenia', 'nodules', 'skin discoloration', 'skin irritation', 'effusion', 'fluid', 'edema', 'leak', 'redness', 'tenderness', 'erythema', 'itching']
  
```

```

In [4]: punctuations = '!"()[]{};:","\,<>./?@$%^&*~_`'
        stopwords = nltk.corpus.stopwords.words('english')
  
```

```

def processing_text(s):
    s = str(s)
    no_punct = ""
    for char in s:
        if char not in punctuations:
            no_punct = no_punct + char
    if ('ALCL-' in no_punct) | ('GEL-' in no_punct):
        no_punct = no_punct.replace('ALCL-', 'ALCL ')
        no_punct = no_punct.replace('GEL-', 'GEL ')
    l = no_punct.split(' ')
    output = []
    for w in l:
        if w in stopwords:
            continue
        output.append(w)
    return ' '.join(output)
  
```

```

In [5]: df_BI_DEV = pd.read_csv('WF/DEV_BI_FULL_TABLE.txt', sep='|', header=0, encoding='ISO-8859-1')
        df_BI_DEV = df_BI_DEV.drop_duplicates()
        df_BI_TEXT = pd.read_csv('WF/TEXT_FULL_BI_LIST.txt', sep='|', header=0, encoding='ISO-8859-1')
        df_BI_TEXT = df_BI_TEXT.drop_duplicates('MDR_TEXT_KEY')
        print('Device #:', df_BI_DEV.shape[0])
        print('Text #:', df_BI_TEXT.shape[0])
        df_BI = df_BI_TEXT.merge(df_BI_DEV, on='MDR_REPORT_KEY', how='inner')
        df_BI['MANUFACTURER_D_NAME'] = df_BI['MANUFACTURER_D_NAME'].astype(str)
  
```

```

df_BI['BRAND_NAME'] = df_BI['BRAND_NAME'].astype(str)
df_BI['GENERIC_NAME'] = df_BI['GENERIC_NAME'].astype(str)
df_BI['FOI_TEXT'] = df_BI['FOI_TEXT'].astype(str)
df_BI = df_BI.drop_duplicates()
df_BI['FOI_TEXT'] = df_BI['FOI_TEXT'].map(processing_text)
print('Full table #:', df_BI.shape[0])

```

Device #: 28182  
 Text #: 27137  
 Full table #: 28301

```

In [17]: def text_search(text, k):
          l = text.split(' ')
          if ' ' in k:
              if k in text:
                  return True
              else:
                  return False
          else:
              if k in l:
                  return True
              else:
                  return False

```

```

def filter_merge(f1, f2, f3):
    return (f1 | f2 | f3)

```

```

In [18]: print('Manufacturer word frequency:\n')
          for m in manufacturer:
              df_BI['filter'] = np.vectorize(text_search)(df_BI['MANUFACTURER_D_NAME'], m)
              temp = df_BI.loc[df_BI['filter']==True, :]
              del df_BI['filter']
              temp.to_csv('WF_FULL_TABLE/manufacturer/'+m+'.txt', header=True, sep='|', index=False)
              print(m, ': ', temp.shape[0])
              del temp

```

Manufacturer word frequency:

EUROMED : 0  
 ALLEGIANCE HEALTHCARE : 14  
 MCGHAN : 2141  
 SILIMED : 7  
 MEDICAL ENGINEERING : 1542  
 INAMED : 199  
 ALLERGAN : 2565  
 DOW CORNING : 3630  
 COX-UPHOFF INTERNATIONAL : 2  
 IDEAL IMPLANT : 57

NATURAL Y SURGICAL SPECIALTIES : 1  
 NAGOR : 4  
 POLY IMPLANT PROTHESE : 3  
 MENTOR : 3502  
 BAXTER HEALTHCARE : 351  
 SIENTRA : 19  
 BIOPLASTY : 8  
 HUTCHISON INTERNATIONAL : 2  
 MEDICAL ENGINEERING CORPORATION : 3  
 PMT : 22  
 BIOSIL : 1681

```

In [19]: print('Surface type word frequency:\n')
         for s in surface_type:
             df_BI['filter_1'] = np.vectorize(text_search)(df_BI['BRAND_NAME'], s)
             df_BI['filter_2'] = np.vectorize(text_search)(df_BI['GENERIC_NAME'], s)
             df_BI['filter_3'] = np.vectorize(text_search)(df_BI['FOI_TEXT'], s)
             df_BI['filter'] = np.vectorize(filter_merge)(df_BI['filter_1'], df_BI['filter_2'])
             temp = df_BI.loc[df_BI['filter']==True, :]
             del df_BI['filter'], df_BI['filter_1'], df_BI['filter_2'], df_BI['filter_3']
             temp.to_csv('WF_FULL_TABLE/surface/'+s+'.txt', header=True, sep='|', index=False)
             print(s, ': ', temp.shape[0])
             del temp
  
```

Surface type word frequency:

SMOOTH : 1032  
 TEXTURED : 769  
 BIOCELL : 75  
 MICROCELL : 1  
 POLYURETHANE : 121

```

In [20]: print('Fill type word frequency:\n')
         for f in fill_type:
             df_BI['filter_1'] = np.vectorize(text_search)(df_BI['BRAND_NAME'], f)
             df_BI['filter_2'] = np.vectorize(text_search)(df_BI['GENERIC_NAME'], f)
             df_BI['filter_3'] = np.vectorize(text_search)(df_BI['FOI_TEXT'], f)
             df_BI['filter'] = np.vectorize(filter_merge)(df_BI['filter_1'], df_BI['filter_2'])
             temp = df_BI.loc[df_BI['filter']==True, :]
             del df_BI['filter'], df_BI['filter_1'], df_BI['filter_2'], df_BI['filter_3']
             temp.to_csv('WF_FULL_TABLE/fill/'+f+'.txt', header=True, sep='|', index=False)
             print(f, ': ', temp.shape[0])
             del temp
  
```

Fill type word frequency:

SALINE : 7378

SILICONE : 11189  
GEL : 8281  
COHESIVE : 363

```
In [21]: print('Implantation indication word frequency:\n')
        for i in implantation_indication:
            df_BI['filter'] = np.vectorize(text_search)(df_BI['FOI_TEXT'], i)
            temp = df_BI.loc[df_BI['filter']==True, :]
            del df_BI['filter']
            temp.to_csv('WF_FULL_TABLE/implantation_indication/'+i+'.txt', header=True, sep='|')
            print(i, ': ', temp.shape[0])
            del temp
```

Implantation indication word frequency:

AUGMENTATION : 1944  
RECONSTRUCTION : 1053  
COSMETIC : 257  
REVISION : 316

```
In [22]: print('ALCL word frequency:\n')
        for m in ALCL:
            df_BI['filter'] = np.vectorize(text_search)(df_BI['FOI_TEXT'], m)
            temp = df_BI.loc[df_BI['filter']==True, :]
            del df_BI['filter']
            temp.to_csv('WF_FULL_TABLE/ALCL/'+m+'.txt', header=True, sep='|', index=False)
            print(m, ': ', temp.shape[0])
            del temp
```

ALCL word frequency:

ALCL : 721  
ANAPLASTIC LARGE CELL LYMPHOMA : 492  
LYMPHOMA : 905  
T-CELL LYMPHOMA : 74  
B-CELL LYMPHOMA : 1  
CANCER : 828  
TUMOR : 80  
SUSPECT : 34  
CONFIRM : 188

```
In [23]: print('Side word frequency:\n')
        for s in side:
            df_BI['filter'] = np.vectorize(text_search)(df_BI['FOI_TEXT'], s)
            temp = df_BI.loc[df_BI['filter']==True, :]
            del df_BI['filter']
```

```
temp.to_csv('WF_FULL_TABLE/side/'+s+'.txt', header=True, sep='|', index=False)
print(s, ': ', temp.shape[0])
del temp
```

Side word frequency:

```
LEFT : 6917
RIGHT : 6975
BILATERAL : 6925
BOTH SIDES : 98
```

```
In [24]: print('Biomarker word frequency:\n')
        for b in biomarker:
            df_BI['filter'] = np.vectorize(text_search)(df_BI['FOI_TEXT'], b)
            temp = df_BI.loc[df_BI['filter']==True, :]
            del df_BI['filter']
            temp.to_csv('WF_FULL_TABLE/biomarker/'+b+'.txt', header=True, sep='|', index=False)
            print(b, ': ', temp.shape[0])
            del temp
```

Biomarker word frequency:

```
CD 30 : 7
ALK : 89
NEGATIVE : 321
POSITIVE : 550
CD30- : 0
CD30+ : 79
ALK- : 65
ALK+ : 0
```

```
In [25]: print('Symptom word frequency:\n')
        for s in symptom:
            s = s.upper()
            df_BI['filter'] = np.vectorize(text_search)(df_BI['FOI_TEXT'], s)
            temp = df_BI.loc[df_BI['filter']==True, :]
            del df_BI['filter']
            temp.to_csv('WF_FULL_TABLE/symptom/'+s+'.txt', header=True, sep='|', index=False)
            print(s, ': ', temp.shape[0])
            del temp
```

Symptom word frequency:

```
BREAST PAIN : 736
BREAST SWELLING : 35
BREAST CYST : 6
BREAST CALCIFICATION : 3
```

CAPSULAR CONTRACTURE : 3106  
 LYMPH NODE ENLARGEMENT : 3  
 FIRMNESS OF BREAST : 5  
 HEMATOMA : 348  
 MASS : 278  
 LUMP : 194  
 RUPTURE : 2846  
 DEFLATED : 1172  
 INFECTION : 1504  
 ABSCESS : 35  
 LEUKOPENIA : 2  
 NODULES : 78  
 SKIN DISCOLORATION : 13  
 SKIN LESION : 17  
 SEROMA : 782  
 EFFUSION : 43  
 FLUID : 668  
 EDEMA : 65  
 LEAK : 381  
 REDNESS : 149  
 TENDERNESS : 372  
 ERYTHEMA : 60  
 ASYMMETRY : 682  
 BREAST ENLARGEMENT : 10

```

In [6]: full_list = {'manufacturer':manufacturer, 'fill':fill_type, 'surface':surface_type,
                    'implantation_indication':implantation_indication, 'ALCL':ALCL, 'side':side,
                    'biomarker':biomarker, 'symptom':symptom}

df_vector = pd.DataFrame()
df_vector['MDR_REPORT_KEY'] = df_BI['MDR_REPORT_KEY']
df_vector['MANUFACTURER_D_NAME'] = df_BI['MANUFACTURER_D_NAME']
df_vector['BRAND_NAME'] = df_BI['BRAND_NAME']
df_vector['GENERIC_NAME'] = df_BI['GENERIC_NAME']
df_vector['FOI_TEXT'] = df_BI['FOI_TEXT']

for key, value in full_list.items():
    for w in value:
        temp = pd.read_csv(os.path.join('WF_FULL_TABLE', key, w+'.txt'), sep='|', header=1,
                             encoding='ISO-8859-1', error_bad_lines=False)
        key_list = list(temp['MDR_REPORT_KEY'])
        del temp
        for k in key_list:
            df_vector.loc[df_vector['MDR_REPORT_KEY']==k, w] = 1
        try:
            df_vector[w] = df_vector[w].fillna(0)
            df_vector[w] = df_vector[w].astype(int)

```

```

except:
    continue

# print('Before:', df_vector.shape[0])
# temp = df_BI[['MDR_REPORT_KEY', 'MANUFACTURER_D_NAME', 'BRAND_NAME', 'GENERIC_NAME']
# df_vector = df_vector.merge(temp, on=['MDR_REPORT_KEY'], how='inner')
# df_vector = df_vector.drop_duplicates()
# print('After:', df_vector.shape[0])
df_vector.to_csv('keyword_vector.txt', sep='|', header=True, index=False)
df_vector.head(20)

```

```

Out[6]:
MDR_REPORT_KEY  MANUFACTURER_D_NAME  \
0      6730886  ALLERGAN (COSTA RICA)
1      6730886  ALLERGAN (COSTA RICA)
2      6734192  ALLERGAN (COSTA RICA)
3      6734192  ALLERGAN (COSTA RICA)
4      6283766          IDEAL IMPLANT
5      6283766          IDEAL IMPLANT
6      6533466          MENTOR
7      6533466          MENTOR
8      6315557  ALLERGAN (COSTA RICA)
9      6315557  ALLERGAN (COSTA RICA)
10     6747770  ALLERGAN (COSTA RICA)
11     6747770  ALLERGAN (COSTA RICA)
12     6739134  ALLERGAN (COSTA RICA)
13     6739134  ALLERGAN (COSTA RICA)
14     6749011  MENTOR WORLDWIDE LLC
15     6749011  MENTOR WORLDWIDE LLC
16     6748046  ALLERGAN (COSTA RICA)
17     6748046  ALLERGAN (COSTA RICA)
18     6275181  ALLERGAN (COSTA RICA)
19     6275181  ALLERGAN (COSTA RICA)

          BRAND_NAME  \
0          UNK SALINE IMPLANT
1          UNK SALINE IMPLANT
2  STYLE 68 SALINE FILLED BREAST IMPLANT
3  STYLE 68 SALINE FILLED BREAST IMPLANT
4  IDEAL IMPLANT STRUCTURED BREAST IMPLANT
5  IDEAL IMPLANT STRUCTURED BREAST IMPLANT
6          MEMORY GEL BREAST IMPLANT
7          MEMORY GEL BREAST IMPLANT
8          UNK MAMMARY IMPLANT
9          UNK MAMMARY IMPLANT
10  STYLE 68 SALINE FILLED BREAST IMPLANT
11  STYLE 68 SALINE FILLED BREAST IMPLANT
12  STYLE 168 SALINE FILLED BREAST IMPLANT
13  STYLE 168 SALINE FILLED BREAST IMPLANT

```



14	nan
15	nan
16	STYLE 68 SALINE FILLED BREAST IMPLANT
17	STYLE 68 SALINE FILLED BREAST IMPLANT
18	UNK MAMMARY IMPLANT
19	UNK MAMMARY IMPLANT

	GENERIC_NAME \
0	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
1	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
2	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
3	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
4	SALINE-FILLED BREAST IMPLANT
5	SALINE-FILLED BREAST IMPLANT
6	BREAST IMPLANT
7	BREAST IMPLANT
8	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
9	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
10	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
11	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
12	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
13	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
14	BREAST IMPLANT
15	BREAST IMPLANT
16	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
17	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
18	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
19	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE

	FOI_TEXT	ALLEGIANCE HEALTHCARE \
0	HEALTHCARE PROFESSIONAL REPORTED A LEFT SIDE D...	0
1	DEVICE EVALUATION VISUAL ANALYSIS OF THE RETUR...	0
2	THE DEVICE REMAINS IMPLANTED A REVIEW OF THE D...	0
3	PATIENT REPORTED THAT THE LEFT SIDE HAS COLLAP...	0
4	DEFLATION RESULTING IN EXPLANTATION	0
5		0
6	I HAD A BREAST AUGMENTATION ON B6 2015 SINCE T...	0
7	I HAD A BREAST AUGMENTATION ON B6 2015 SINCE T...	0
8	THERAPEUTIC GOODS ADMINISTRATION REPORTED CONF...	0
9	THE EVENT OF LYMPHOMA IS A PHYSIOLOGICAL COMPL...	0
10	A REVIEW OF THE DEVICE HISTORY RECORD HAS BEEN...	0
11	HEALTHCARE PROFESSIONAL REPORTED RIGHT SIDE PO...	0
12	HEALTHCARE PROFESSIONAL REPORTED A LEFT SIDE D...	0
13	A REVIEW OF THE DEVICE HISTORY RECORD HAS BEEN...	0
14	NO DEVICE WAS RECEIVED FOR ANALYSIS AT THE TIM...	0
15	IT WAS REPORTED THAT THE PATIENT HAS SUFFERED ...	0
16	HEALTH PROFESSIONAL REPORTED RIGHT SIDE Â&RPT...	0
17	A REVIEW OF THE DEVICE HISTORY RECORD HAS BEEN...	0

18	ARTICLE CITATION Â&TWO-STAGE IMPLANT-BASED BRE...	0
19	ARTICLE Â&TWO-STAGE IMPLANT-BASED BREAST RECON...	0

	NAGOR	MEDICAL ENGINEERING	COX-UPHOFF INTERNATIONAL	\
0	0	0	0	
1	0	0	0	
2	0	0	0	
3	0	0	0	
4	0	0	0	
5	0	0	0	
6	0	0	0	
7	0	0	0	
8	0	0	0	
9	0	0	0	
10	0	0	0	
11	0	0	0	
12	0	0	0	
13	0	0	0	
14	0	0	0	
15	0	0	0	
16	0	0	0	
17	0	0	0	
18	0	0	0	
19	0	0	0	

	POLY IMPLANT PROTHESE	...	seroma	effusion	fluid	edema	\
0	0	...	1	0	0	0	
1	0	...	1	0	0	0	
2	0	...	0	0	0	0	
3	0	...	0	0	0	0	
4	0	...	0	0	0	0	
5	0	...	0	0	0	0	
6	0	...	0	0	0	0	
7	0	...	0	0	0	0	
8	0	...	1	0	1	0	
9	0	...	1	0	1	0	
10	0	...	0	0	0	0	
11	0	...	0	0	0	0	
12	0	...	0	0	0	0	
13	0	...	0	0	0	0	
14	0	...	0	0	0	0	
15	0	...	0	0	0	0	
16	0	...	0	0	0	0	
17	0	...	0	0	0	0	
18	0	...	0	0	0	0	
19	0	...	0	0	0	0	

leak redness tenderness erythema asymmetry breast enlargement

0	1	0	0	0	1	0
1	1	0	0	0	1	0
2	0	0	0	0	1	0
3	0	0	0	0	1	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	0	0	0	0	0	0
7	0	0	0	0	0	0
8	0	0	0	0	0	0
9	0	0	0	0	0	0
10	0	0	0	0	1	0
11	0	0	0	0	1	0
12	0	0	0	0	1	0
13	0	0	0	0	1	0
14	0	0	0	0	0	0
15	0	0	0	0	0	0
16	0	0	0	0	1	0
17	0	0	0	0	1	0
18	0	0	0	0	0	0
19	0	0	0	0	0	0

[20 rows x 85 columns]

```
In [7]: print('Is there saline and silicone at the same time?')
df_vector.loc[(df_vector['SALINE']==1) & (df_vector['SILICONE']==1), :]
```

Is there saline and silicone at the same time?

```
Out [7]:
```

	MDR_REPORT_KEY	MANUFACTURER_D_NAME \
30	6553778	DUPONT/ DOW CORNING/ MENTOR
31	6553778	DUPONT
32	6553778	DUPONT
39	6751940	ALLERGAN (COSTA RICA)
40	6751940	ALLERGAN (COSTA RICA)
53	6732140	ALLERGAN (COSTA RICA)
54	6732140	ALLERGAN (COSTA RICA)
81	6378780	ALLERGAN (COSTA RICA)
82	6378780	ALLERGAN (COSTA RICA)
91	6748708	ALLERGAN (COSTA RICA)
92	6748708	ALLERGAN (COSTA RICA)
119	6736742	nan
120	6736742	nan
138	6567317	ALLERGAN (COSTA RICA)
139	6567317	ALLERGAN (COSTA RICA)
168	6750199	UNKNOWN MANUFACTURER
169	6750199	UNKNOWN MANUFACTURER
249	6498449	UNKNOWN MANUFACTURER

250	6498449	UNKNOWN MANUFACTURER
262	6732708	ALLERGAN (COSTA RICA)
263	6732708	ALLERGAN (COSTA RICA)
286	6751928	ALLERGAN (COSTA RICA)
287	6751928	ALLERGAN (COSTA RICA)
288	6752192	ALLERGAN (COSTA RICA)
289	6752192	ALLERGAN (COSTA RICA)
402	6754735	UNKNOWN MANUFACTURER
403	6754735	UNKNOWN MANUFACTURER
460	6604570	MENTOR
461	6604570	MENTOR
466	6460781	ALLERGAN (COSTA RICA)
...	...	...
27903	6157609	MENTOR
27904	6157609	MENTOR
27905	6167285	UNKNOWN MANUFACTURER
27906	6167285	UNKNOWN MANUFACTURER
27907	6167285	UNKNOWN MANUFACTURER
27908	6167285	UNKNOWN MANUFACTURER
27911	5825630	UNK
27922	6156904	UNKNOWN MANUFACTURER
27923	6156904	UNKNOWN MANUFACTURER
27940	6131484	ALLERGAN
27941	6131484	ALLERGAN
27959	5697586	ALLERGAN (COSTA RICA)
27960	5697586	ALLERGAN (COSTA RICA)
28025	5427646	ALLERGAN
28026	5427646	ALLERGAN
28027	5427646	ALLERGAN
28028	5427646	MCGHAN
28029	5427646	ALLERGAN
28030	5427646	MCGHAN IMPLANTS
28037	5829617	MENTOR
28038	5829617	MENTOR
28052	6174085	DOW CORNING / MENTOR
28053	6174085	DOW CORNING / MENTOR
28212	5722896	MENTOR
28213	5722896	MENTOR
28219	6176965	UNKNOWN MANUFACTURER
28220	6176965	UNKNOWN MANUFACTURER
28224	5808310	MENTOR
28234	5875011	ALLERGAN, INC.
28235	5875011	ALLERGAN, INC.

	BRAND_NAME \
30	BREAST IMPLANT
31	BREAST IMPLANT
32	BREAST IMPLANT

39	UNK MAMMARY IMPLANT
40	UNK MAMMARY IMPLANT
53	UNK MAMMARY IMPLANT
54	UNK MAMMARY IMPLANT
81	STYLE 363 SALINE FILLED BREAST IMPLANT
82	STYLE 363 SALINE FILLED BREAST IMPLANT
91	UNK MAMMARY IMPLANT
92	UNK MAMMARY IMPLANT
119	UNK MAMMARY IMPLANT
120	UNK MAMMARY IMPLANT
138	UNK SALINE IMPLANT
139	UNK SALINE IMPLANT
168	UNK MAMMARY IMPLANT
169	UNK MAMMARY IMPLANT
249	UNK MAMMARY IMPLANT
250	UNK MAMMARY IMPLANT
262	UNK GEL SALINE IMPLANT
263	UNK GEL SALINE IMPLANT
286	UNK MAMMARY IMPLANT
287	UNK MAMMARY IMPLANT
288	UNK MAMMARY IMPLANT
289	UNK MAMMARY IMPLANT
402	UNK MAMMARY IMPLANT
403	UNK MAMMARY IMPLANT
460	MENTOR BREAST IMPLANTS
461	MENTOR BREAST IMPLANTS
466	UNK SALINE IMPLANT
...	...
27903	MEMORY GEL SMOOTH ROUND HIGH PROFILE
27904	MEMORY GEL SMOOTH ROUND HIGH PROFILE
27905	UNK GEL BREAST IMPLANT
27906	UNK GEL BREAST IMPLANT
27907	UNK GEL BREAST IMPLANT
27908	UNK GEL BREAST IMPLANT
27911	SALINE BREAST IMPLANT
27922	UNK GEL BREAST IMPLANT
27923	UNK GEL BREAST IMPLANT
27940	NATRELLE SILICONE-FILLED IMPLANTS
27941	NATRELLE SILICONE-FILLED IMPLANTS
27959	UNK SALINE IMPLANT
27960	UNK SALINE IMPLANT
28025	EXPANDER R STYLE 150
28026	BREAST IMPLANT L STYLE 410FF
28027	BREAST IMPLANT L STYLE 410FF
28028	BREAST IMPLANT L STYLE 153
28029	SALINE IMPLANT L STYLE 150
28030	BREAST IMPLANT L STYLE 153
28037	SALINE IMPLANTS WITH SILICONE SHELL

28038	SALINE IMPLANTS WITH SILICONE SHELL
28052	SALINE BREAST IMPLANTS
28053	SALINE BREAST IMPLANTS
28212	MENTOR SMOOTH ROUND HIGH PROFILE GEL
28213	MENTOR SMOOTH ROUND HIGH PROFILE GEL
28219	UNK GEL BREAST IMPLANT
28220	UNK GEL BREAST IMPLANT
28224	SILICONE BREAST IMPLANT
28234	NATRELLE SALINE-FILLED BREAST IMPLANTS
28235	NATRELLE SALINE-FILLED BREAST IMPLANTS

	GENERIC_NAME \
30	BREAST IMPLANT
31	BREAST IMPLANT
32	BREAST IMPLANT
39	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
40	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
53	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
54	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
81	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
82	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
91	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
92	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
119	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
120	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
138	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
139	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
168	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
169	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
249	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
250	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
262	PROSTHESIS, BREAST, NONINFLATABLE, INTERNAL, S...
263	PROSTHESIS, BREAST, NONINFLATABLE, INTERNAL, S...
286	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
287	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
288	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
289	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
402	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
403	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
460	MENTOR BREAST IMPLANTS
461	MENTOR BREAST IMPLANTS
466	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE
...	...
27903	BREAST IMPLANTS
27904	BREAST IMPLANTS
27905	PROSTHESIS, BREAST, NONINFLATABLE, INTERNAL, S...
27906	PROSTHESIS, BREAST, NONINFLATABLE, INTERNAL, S...
27907	PROSTHESIS, BREAST, NONINFLATABLE, INTERNAL, S...

27908 PROSTHESIS, BREAST, NONINFLATABLE, INTERNAL, S...  
 27911 SALINE BREAST IMPLANT  
 27922 PROSTHESIS, BREAST, NONINFLATABLE, INTERNAL, S...  
 27923 PROSTHESIS, BREAST, NONINFLATABLE, INTERNAL, S...  
 27940 NATRELLE SILICONE-FILLED IMPLANTS  
 27941 NATRELLE SILICONE-FILLED IMPLANTS  
 27959 PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE  
 27960 PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE  
 28025 EXPANDER R STYLE 150  
 28026 BREAST IMPLANT L STYLE 410FF  
 28027 BREAST IMPLANT L STYLE 410FF  
 28028 BREAST IMPLANT L STYLE 153  
 28029 SALINE IMPLANT L STYLE 150  
 28030 BREAST IMPLANT L STYLE 153  
 28037 SALINE IMPLANTS WITH SILICONE SHELL  
 28038 SALINE IMPLANTS WITH SILICONE SHELL  
 28052 SALINE BREAST IMPLANTS  
 28053 SALINE BREAST IMPLANTS  
 28212 MENTOR SMOOTH ROUND HIGH PROFILE GEL  
 28213 MENTOR SMOOTH ROUND HIGH PROFILE GEL  
 28219 PROSTHESIS, BREAST, NONINFLATABLE, INTERNAL, S...  
 28220 PROSTHESIS, BREAST, NONINFLATABLE, INTERNAL, S...  
 28224 SILICONE BREAST IMPLANT  
 28234 NATRELLE SALINE-FILLED BREAST IMPLANTS  
 28235 NATRELLE SALINE-FILLED BREAST IMPLANTS

FOI\_TEXT \

30 I HAD SILICONE IMPLANT IN 1986 AND LAST YEAR N...  
 31 I HAD SILICONE IMPLANT IN 1986 AND LAST YEAR N...  
 32 I HAD SILICONE IMPLANT IN 1986 AND LAST YEAR N...  
 39 THIS EVENT IS A KNOWN POTENTIAL ADVERSE EVENT ...  
 40 HEALTHCARE PROFESSIONAL REPORTED UNKNOWN SIDE ...  
 53 FURTHER INFORMATION FROM THE REPORTER REGARDIN...  
 54 PATIENT REPORTED UNKNOWN SIDE RUPTURE DEVICE R...  
 81 IN RESPONSE TO FDA REPORT NUMBER MW5067421 THE...  
 82 HEALTHCARE PROFESSIONAL REPORTED RIGHT SIDE SE...  
 91 THIS EVENT IS A KNOWN POTENTIAL ADVERSE EVENT ...  
 92 PATIENT REPORTED UNKNOWN SIDE LEAKING IMPLANT ...  
 119 ALLERGAN IS UNABLE TO CONFIRM WITH THE HEALTHC...  
 120 PATIENT REPORTED RIGHT SIDE RUPTURE ADDITIONAL...  
 138 REPORTED EVENT OF A PATIENT WITH A LEFT SIDE Â...  
 139 ARTICLE CITATION Â&CD30+ T CELLS IN LATE SEROM...  
 168 PATIENT REPORTED LEFT SIDE LEAK ADDITIONALLY H...  
 169 THIS EVENT IS A KNOWN POTENTIAL ADVERSE EVENT ...  
 249 FDA REPORTS Â&THE FDA HAS RECEIVED A TOTAL OF ...  
 250 THIS REPORT IS SUBMITTED IN RESPONSE TO FDA NO...  
 262 THE DEVICE REMAINS IMPLANTED FURTHER INFORMATI...  
 263 HEALTHCARE PROFESSIONAL REPORTED LEFT SIDE RUP...

286 HEALTH PROFESSIONAL REPORTED METASTASES TO LYM...  
 287 FURTHER INFORMATION FROM THE REPORTER REGARDIN...  
 288 HEALTHCARE PROFESSIONAL REPORTED UNKNOWN SIDE ...  
 289 THIS EVENT IS A KNOWN POTENTIAL ADVERSE EVENT ...  
 402 THIS EVENT IS A KNOWN POTENTIAL ADVERSE EVENT ...  
 403 HEALTH PROFESSIONAL REPORTED LEFT SIDE DEVICE ...  
 460 I DO NOT KNOW THE EXACT DATES OFF HAND HOWEVER...  
 461 I DO NOT KNOW THE EXACT DATES OFF HAND HOWEVER...  
 466 HEALTHCARE PROFESSIONAL REPORTED RIGHT SIDE AL...  
 ...  
 27903 I REPLACED MY MENTOR SILICONE IMPLANTS THAT WE...  
 27904 I REPLACED MY MENTOR SILICONE IMPLANTS THAT WE...  
 27905 ABSTRACT OF LITERATURE ARTICLE "BREAST IMPLAN...  
 27906 "BREAST IMPLANT-ASSOCIATED ANAPLASTIC LARGE C...  
 27907 REPORTED EVENTS ARE ADDRESSED IN DEVICE LABELI...  
 27908 ARTICLE "BREAST IMPLANT-ASSOCIATED ANAPLASTIC...  
 27911 BREAST IMPLANT SILICONE SHELL HAS SECRETED CHE...  
 27922 RESEARCH ARTICLE GEL BLEED AND RUPTURE OF SILI...  
 27923 ARTICLE CITATION KAPPEL RM BOER LL DIJKMAN H 2...  
 27940 I HAD GOTTEN SILICONE IMPLANTS 2 YEARS AGO B6 ...  
 27941 I HAD GOTTEN SILICONE IMPLANTS 2 YEARS AGO B6 ...  
 27959 MEDWATCH SENT TO THE FDA ON 06032016 LITERATUR...  
 27960 THE FOLLOWING JOURNAL ARTICLE WAS REVIEWED BRE...  
 28025 I HAD TO HAVE A DOUBLE MASTECTOMY IN 1997 AND ...  
 28026 I HAD TO HAVE A DOUBLE MASTECTOMY IN 1997 AND ...  
 28027 I HAD TO HAVE A DOUBLE MASTECTOMY IN 1997 AND ...  
 28028 I HAD TO HAVE A DOUBLE MASTECTOMY IN 1997 AND ...  
 28029 I HAD TO HAVE A DOUBLE MASTECTOMY IN 1997 AND ...  
 28030 I HAD TO HAVE A DOUBLE MASTECTOMY IN 1997 AND ...  
 28037 I HAD MENTOR SALINE IMPLANTS PUT IN IN 2005 MY...  
 28038 I HAD MENTOR SALINE IMPLANTS PUT IN IN 2005 MY...  
 28052 AT THE AGE OF B6 I HAD BREAST IMPLANTS IN THEN...  
 28053 AT THE AGE OF B6 I HAD BREAST IMPLANTS IN THEN...  
 28212 HAD 10 YEAR SALINE IMPLANTS REMOVED AND MENTOR...  
 28213 HAD 10 YEAR SALINE IMPLANTS REMOVED AND MENTOR...  
 28219 ARTICLE "BREAST IMPLANT-ASSOCIATED ANAPLAST...  
 28220 ARTICLE CITATION "BREAST IMPLANT-ASSOCIATED A...  
 28224 THOUSANDS OF KNOWN WOMEN ARE SICK FROM A SILIC...  
 28234 SWITCHED OUT SILICONE BREAST IMPLANTS FOR SALI...  
 28235 SWITCHED OUT SILICONE BREAST IMPLANTS FOR SALI...

	ALLEGIANCE HEALTHCARE	NAGOR	MEDICAL ENGINEERING \
30	0	0	0
31	0	0	0
32	0	0	0
39	0	0	0
40	0	0	0
53	0	0	0



54	0	0	0
81	0	0	0
82	0	0	0
91	0	0	0
92	0	0	0
119	0	0	0
120	0	0	0
138	0	0	0
139	0	0	0
168	0	0	0
169	0	0	0
249	0	0	0
250	0	0	0
262	0	0	0
263	0	0	0
286	0	0	0
287	0	0	0
288	0	0	0
289	0	0	0
402	0	0	0
403	0	0	0
460	0	0	0
461	0	0	0
466	0	0	0
...	...	...	...
27903	0	0	0
27904	0	0	0
27905	0	0	0
27906	0	0	0
27907	0	0	0
27908	0	0	0
27911	0	0	0
27922	0	0	0
27923	0	0	0
27940	0	0	0
27941	0	0	0
27959	0	0	0
27960	0	0	0
28025	0	0	0
28026	0	0	0
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28028	0	0	0
28029	0	0	0
28030	0	0	0
28037	0	0	0
28038	0	0	0
28052	0	0	0
28053	0	0	0

28212	0	0	0
28213	0	0	0
28219	0	0	0
28220	0	0	0
28224	0	0	0
28234	0	0	0
28235	0	0	0

	COX-UPHOFF INTERNATIONAL	POLY IMPLANT PROTHESE	...
30	0	0	...
31	0	0	...
32	0	0	...
39	0	0	...
40	0	0	...
53	0	0	...
54	0	0	...
81	0	0	...
82	0	0	...
91	0	0	...
92	0	0	...
119	0	0	...
120	0	0	...
138	0	0	...
139	0	0	...
168	0	0	...
169	0	0	...
249	0	0	...
250	0	0	...
262	0	0	...
263	0	0	...
286	0	0	...
287	0	0	...
288	0	0	...
289	0	0	...
402	0	0	...
403	0	0	...
460	0	0	...
461	0	0	...
466	0	0	...
...	...	...	...
27903	0	0	...
27904	0	0	...
27905	0	0	...
27906	0	0	...
27907	0	0	...
27908	0	0	...
27911	0	0	...
27922	0	0	...

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27923	0	0	...
27940	0	0	...
27941	0	0	...
27959	0	0	...
27960	0	0	...
28025	0	0	...
28026	0	0	...
28027	0	0	...
28028	0	0	...
28029	0	0	...
28030	0	0	...
28037	0	0	...
28038	0	0	...
28052	0	0	...
28053	0	0	...
28212	0	0	...
28213	0	0	...
28219	0	0	...
28220	0	0	...
28224	0	0	...
28234	0	0	...
28235	0	0	...

	seroma	effusion	fluid	edema	leak	redness	tenderness	erythema	\
30	0	0	0	0	0	0	0	0	
31	0	0	0	0	0	0	0	0	
32	0	0	0	0	0	0	0	0	
39	0	0	0	0	0	0	0	0	
40	0	0	0	0	0	0	0	0	
53	0	0	0	0	0	0	0	0	
54	0	0	0	0	0	0	0	0	
81	1	0	1	0	0	0	0	0	
82	1	0	1	0	0	0	0	0	
91	0	0	0	0	0	0	0	0	
92	0	0	0	0	0	0	0	0	
119	0	0	0	0	0	0	0	0	
120	0	0	0	0	0	0	0	0	
138	1	0	0	0	0	0	0	0	
139	1	0	0	0	0	0	0	0	
168	0	0	0	0	1	0	0	0	
169	0	0	0	0	1	0	0	0	
249	1	0	1	0	0	0	0	0	
250	1	0	1	0	0	0	0	0	
262	0	0	0	0	0	0	0	0	
263	0	0	0	0	0	0	0	0	
286	0	0	0	0	0	0	0	0	
287	0	0	0	0	0	0	0	0	
288	0	0	0	0	0	0	0	0	

289	0	0	0	0	0	0	0	0
402	0	0	0	0	0	0	0	0
403	0	0	0	0	0	0	0	0
460	0	0	0	0	0	0	0	0
461	0	0	0	0	0	0	0	0
466	1	0	1	1	0	0	0	0
...	...	...	...	...	...	...	...	...
27903	0	0	0	0	0	0	0	0
27904	0	0	0	0	0	0	0	0
27905	1	0	0	0	0	0	0	1
27906	1	0	0	0	0	0	0	1
27907	1	0	0	0	0	0	0	1
27908	1	0	0	0	0	0	0	1
27911	0	0	0	0	0	0	0	0
27922	0	0	0	0	0	0	0	0
27923	0	0	0	0	0	0	0	0
27940	0	0	0	0	1	0	0	0
27941	0	0	0	0	1	0	0	0
27959	0	0	1	0	0	0	0	0
27960	0	0	1	0	0	0	0	0
28025	0	0	0	0	0	0	0	0
28026	0	0	0	0	0	0	0	0
28027	0	0	0	0	0	0	0	0
28028	0	0	0	0	0	0	0	0
28029	0	0	0	0	0	0	0	0
28030	0	0	0	0	0	0	0	0
28037	0	0	0	0	0	0	0	0
28038	0	0	0	0	0	0	0	0
28052	0	0	0	0	0	0	0	0
28053	0	0	0	0	0	0	0	0
28212	0	0	0	0	0	0	0	0
28213	0	0	0	0	0	0	0	0
28219	1	0	0	0	0	0	0	0
28220	1	0	0	0	0	0	0	0
28224	0	0	0	0	0	0	0	0
28234	0	0	0	0	0	0	0	0
28235	0	0	0	0	0	0	0	0

	asymmetry	breast enlargement
30	0	0
31	0	0
32	0	0
39	0	0
40	0	0
53	1	0
54	1	0
81	0	0
82	0	0

91	0	0
92	0	0
119	1	0
120	1	0
138	1	0
139	1	0
168	0	0
169	0	0
249	1	0
250	1	0
262	0	0
263	0	0
286	0	0
287	0	0
288	0	0
289	0	0
402	0	0
403	0	0
460	0	0
461	0	0
466	1	0
...	...	...
27903	0	0
27904	0	0
27905	0	0
27906	0	0
27907	0	0
27908	0	0
27911	0	0
27922	0	0
27923	0	0
27940	0	0
27941	0	0
27959	1	0
27960	1	0
28025	0	0
28026	0	0
28027	0	0
28028	0	0
28029	0	0
28030	0	0
28037	0	0
28038	0	0
28052	0	0
28053	0	0
28212	0	0
28213	0	0
28219	0	0

28220	0	0
28224	0	0
28234	0	0
28235	0	0

[1295 rows x 85 columns]

```
In [8]: print('Is there smooth and textured at the same time?')
df_vector.loc[(df_vector['SMOOTH']==1) & (df_vector['TEXTURED']==1), :]
```

Is there smooth and textured at the same time?

```
Out [8]:
```

	MDR_REPORT_KEY	MANUFACTURER_D_NAME \
249	6498449	UNKNOWN MANUFACTURER
250	6498449	UNKNOWN MANUFACTURER
462	6567310	ALLERGAN (COSTA RICA)
463	6567310	ALLERGAN (COSTA RICA)
514	6572184	ALLERGAN
515	6572184	ALLERGAN
576	6585642	MENTOR
577	6585642	MENTOR
1278	6529881	MCGHAN/ALLERGAN
1279	6529881	MCGHAN/ALLERGAN
1280	6529881	MCGHAN/ALLERGAN
1281	6529881	MCGHAN/ALLERGAN
1316	6584830	MENTOR
1317	6584830	MENTOR
15640	222182	PIP, INC.
17734	257208	PIP, INC.
17959	257211	PIP, INC.
24426	996432	*
25236	2162357	ALLERGAN
25237	2162357	ALLERGAN
25293	2027271	UNK
25412	2025987	ALLERGAN
25413	2025987	ALLERGAN
25512	2210596	ALLERGAN
25513	2210596	ALLERGAN
25555	2612780	ALLERGAN
25556	2612780	ALLERGAN
25667	2578247	ALLERGAN
25668	2578247	ALLERGAN
25732	2645572	ALLERGAN
25733	2645572	ALLERGAN
26554	4207226	ALLERGAN
27655	5761253	ALLERGAN
28114	5525702	ALLERGAN

28115	5525702	ALLERGAN	
			BRAND_NAME \
249		UNK MAMMARY IMPLANT	
250		UNK MAMMARY IMPLANT	
462	STYLE 410	COHESIVE SILICONE GEL FILLED BREAST ...	
463	STYLE 410	COHESIVE SILICONE GEL FILLED BREAST ...	
514		BREAST IMPLANT SILICONE STYLE 120 600CC	
515		MENTOR SMOOTH ROUND PLUS STYLE, 1000 700CC	
576		SMOOTH SALINE BREAST IMPLANTS	
577		SMOOTH SALINE BREAST IMPLANTS	
1278		SALINE TEXTURED BREAST IMPLANT	
1279		SALINE TEXTURED BREAST IMPLANT	
1280		SILTEX SALINE FILLED MAMMARY PROSTHESIS	
1281		SILTEX SALINE FILLED MAMMARY PROSTHESIS	
1316		GEL BREAST IMPLANTS	
1317		GEL BREAST IMPLANTS	
15640		PIP, INC.	
17734		PIP, INC.	
17959		PIP, INC.	
24426		MENTOR	
25236	STYLE 110	SILICONE GEL FILLED BREAST IMPLANT	
25237	STYLE 110	SILICONE GEL FILLED BREAST IMPLANT	
25293		UNK	
25412	STYLE 20	SILICONE GEL FILLED BREAST IMPLANT	
25413	STYLE 20	SILICONE GEL FILLED BREAST IMPLANT	
25512		UNK MAMMARY IMPLANT	
25513		UNK MAMMARY IMPLANT	
25555		UNK SALINE IMPLANT	
25556		UNK SALINE IMPLANT	
25667	STYLE 468	SALINE FILLED BREAST IMPLANT	
25668	STYLE 468	SALINE FILLED BREAST IMPLANT	
25732	STYLE 110	SILICONE GEL FILLED BREAST IMPLANT	
25733	STYLE 110	SILICONE GEL FILLED BREAST IMPLANT	
26554		COHESIVE GEL BREAST IMPLANT	
27655		NATRELLE TEXTURED BREAST IMPLANT	
28114		NATRELLE	
28115		NATURELLE	
			GENERIC_NAME \
249	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE		
250	PROSTHESIS, BREAST, INFLATABLE, INTERNAL, SALINE		
462	PROSTHESIS, BREAST, NONINFLATABLE, INTERNAL, S...		
463	PROSTHESIS, BREAST, NONINFLATABLE, INTERNAL, S...		
514		BREAST IMPLANT	
515		BREAST IMPLANT	
576		SMOOTH SALINE BREAST IMPLANTS	
577		SMOOTH SALINE BREAST IMPLANTS	

1278	BREAST IMPLANTS
1279	BREAST IMPLANTS
1280	PROSTHESIS, BREAST
1281	PROSTHESIS, BREAST
1316	GEL BREAST IMPLANTS
1317	GEL BREAST IMPLANTS
15640	BREAST IMPLANT
17734	BREAST IMPLANT
17959	BREAST IMPLANT
24426	SALINE BREAST IMPLANTS
25236	nan
25237	nan
25293	SALINE BREAST IMPLANT
25412	nan
25413	nan
25512	nan
25513	nan
25555	nan
25556	nan
25667	nan
25668	nan
25732	nan
25733	nan
26554	BREAST IMPLANT
27655	BREAST IMPLANT
28114	BREAST IMPLANTS
28115	BREAST IMPLANTS

FOI\_TEXT \

249	FDA REPORTS &THE FDA HAS RECEIVED A TOTAL OF ...
250	THIS REPORT IS SUBMITTED IN RESPONSE TO FDA NO...
462	ARTICLE CITATION &CD30+ T CELLS IN LATE SEROM...
463	REPORTED EVENT OF A PATIENT WITH A LEFT SIDE &...
514	RIGHT OPEN CAPSULECTOMY AND IMPLANT REMOVAL WI...
515	RIGHT OPEN CAPSULECTOMY AND IMPLANT REMOVAL WI...
576	MENTOR COMBO GEL SILICONESALINE MAMMARY PROSTH...
577	MENTOR COMBO GEL SILICONESALINE MAMMARY PROSTH...
1278	I HAD A BREAST DEFORMITY AS A CHILDTEENAGER I ...
1279	I HAD A BREAST DEFORMITY AS A CHILDTEENAGER I ...
1280	I HAD A BREAST DEFORMITY AS A CHILDTEENAGER I ...
1281	I HAD A BREAST DEFORMITY AS A CHILDTEENAGER I ...
1316	APPROX 7 YEARS AGO I HAD A BREAST AUGMENTATION...
1317	APPROX 7 YEARS AGO I HAD A BREAST AUGMENTATION...
15640	PT DEVELOPED CAPSULAR CONTRACTURE ON LEFT SIDE...
17734	LATERAL DISPLACEMENT OF THE SMOOTH IMPLANTS AN...
17959	LATERAL DISPLACEMENT OF THE SMOOTH IMPLANTS AN...
24426	IN 1992 I HAD CORPORATIONS TEXTURED SALINE BRE...
25236	B4 DEVICE LABELING ADDRESSES DEVICE LABELING A...



25237 A REPORT OF NULL-TYPE ANAPLASTIC LARGE CELL LY...  
 25293 A B6 FEMALE DIAGNOSED WITH BREAST-IMPLANT RELA...  
 25412 HEALTH PROFESSIONAL INITIALLY REPORTS PATIENT ...  
 25413 MEDWATCH SUBMITTED ON 03172011 DEVICE LABELING...  
 25512 RECEIVED ABSTRACT ENTITLED PRIMARY ANAPLASTIC ...  
 25513 DEVICE LABELING ADDRESS THE EVENT OF B4 FOR PR...  
 25555 MEDWATCH SUBMITTED ON B4 2012 DEVICE LABELING ...  
 25556 HEALTHCARE PROFESSIONAL REPORTS VIA MAUDE REPO...  
 25667 MED WATCH SUBMITTED ON B4 2012 DEVICE LABELING...  
 25668 ADDITIONAL INFORMATION PROVIDED RECEIVED FROM ...  
 25732 MEDWATCH SUBMITTED ON 29JUNE2012 DEVICE LABELI...  
 25733 HEALTH PROFESSIONAL REPORTED RIGHT SIDE ANAPLA...  
 26554 I HAD 20 YEAR OLD MCGHAN TEXTURED SALINE IMPLA...  
 27655 I WAS DIAGNOSED WITH BREAST CANCER IN MY RIGHT...  
 28114 BREAST RECONSTRUCTION PATIENT THAT HAD ALLERGA...  
 28115 BREAST RECONSTRUCTION PATIENT THAT HAD ALLERGA...

	ALLEGIANCE HEALTHCARE	NAGOR	MEDICAL ENGINEERING \
249	0	0	0
250	0	0	0
462	0	0	0
463	0	0	0
514	0	0	0
515	0	0	0
576	0	0	0
577	0	0	0
1278	0	0	0
1279	0	0	0
1280	0	0	0
1281	0	0	0
1316	0	0	0
1317	0	0	0
15640	0	0	0
17734	0	0	0
17959	0	0	0
24426	0	0	0
25236	0	0	0
25237	0	0	0
25293	0	0	0
25412	0	0	0
25413	0	0	0
25512	0	0	0
25513	0	0	0
25555	0	0	0
25556	0	0	0
25667	0	0	0
25668	0	0	0
25732	0	0	0

25733	0	0	0
26554	0	0	0
27655	0	0	0
28114	0	0	0
28115	0	0	0

	COX-UPHOFF INTERNATIONAL	POLY IMPLANT PROTHESE	...	\
249	0	0	...	
250	0	0	...	
462	0	0	...	
463	0	0	...	
514	0	0	...	
515	0	0	...	
576	0	0	...	
577	0	0	...	
1278	0	0	...	
1279	0	0	...	
1280	0	0	...	
1281	0	0	...	
1316	0	0	...	
1317	0	0	...	
15640	0	0	...	
17734	0	0	...	
17959	0	0	...	
24426	0	0	...	
25236	0	0	...	
25237	0	0	...	
25293	0	0	...	
25412	0	0	...	
25413	0	0	...	
25512	0	0	...	
25513	0	0	...	
25555	0	0	...	
25556	0	0	...	
25667	0	0	...	
25668	0	0	...	
25732	0	0	...	
25733	0	0	...	
26554	0	0	...	
27655	0	0	...	
28114	0	0	...	
28115	0	0	...	

	seroma	effusion	fluid	edema	leak	redness	tenderness	erythema	\
249	1	0	1	0	0	0	0	0	
250	1	0	1	0	0	0	0	0	
462	1	0	0	0	0	0	0	0	
463	1	0	0	0	0	0	0	0	

514	0	0	1	0	0	0	0	0
515	0	0	1	0	0	0	0	0
576	0	0	0	0	1	0	0	0
577	0	0	0	0	1	0	0	0
1278	0	0	1	0	0	0	0	0
1279	0	0	1	0	0	0	0	0
1280	0	0	1	0	0	0	0	0
1281	0	0	1	0	0	0	0	0
1316	0	0	0	0	0	0	0	0
1317	0	0	0	0	0	0	0	0
15640	0	0	0	0	0	0	0	0
17734	0	0	0	0	0	0	0	0
17959	0	0	0	0	0	0	0	0
24426	0	0	0	0	0	0	0	0
25236	1	0	1	0	0	0	0	0
25237	1	0	1	0	0	0	0	0
25293	1	0	0	0	0	0	0	0
25412	1	0	1	0	0	1	0	0
25413	1	0	1	0	0	1	0	0
25512	1	0	1	0	0	0	0	0
25513	1	0	1	0	0	0	0	0
25555	1	0	1	0	0	1	0	0
25556	1	0	1	0	0	1	0	0
25667	1	0	0	0	0	0	0	0
25668	1	0	0	0	0	0	0	0
25732	1	0	1	0	0	0	0	0
25733	1	0	1	0	0	0	0	0
26554	0	0	0	0	0	0	0	0
27655	0	0	1	0	0	0	0	0
28114	1	0	1	0	0	0	0	0
28115	1	0	1	0	0	0	0	0

	asymmetry	breast enlargement
249	1	0
250	1	0
462	1	0
463	1	0
514	0	0
515	0	0
576	0	0
577	0	0
1278	0	0
1279	0	0
1280	0	0
1281	0	0
1316	0	0
1317	0	0
15640	0	0

17734	0	0
17959	0	0
24426	0	0
25236	0	0
25237	0	0
25293	0	0
25412	0	0
25413	0	0
25512	0	0
25513	0	0
25555	0	0
25556	0	0
25667	0	0
25668	0	0
25732	0	0
25733	0	0
26554	0	0
27655	0	0
28114	0	0
28115	0	0

[35 rows x 85 columns]

In [ ]: