Teva Pharmaceuticals USA, Inc., Teva Pharmaceutical Industries Ltd., Cephalon, Inc., and Actavis Generic Defendants'

Cross Examination of Craig McCann, M.D.

May 18, 2022

Cephalon
Brand Medicines

teva USA
Brand & Generic Medicines

teva LTD
No Medicines in US

Actavis
Generic Medicines

- Actavis LLC
- Actavis Pharma, Inc.
- Watson Laboratories, Inc.
- Actavis South Atlantic LLC
- Actavis Elizabeth LLC
- Actavis Laboratories UT, Inc.
- Actavis Totowa LLC
- Actavis Laboratories FL, Inc.
- Actavis Kadian LLC
- Actavis Mid Atlantic LLC
- Warner Chilcott Company LLC

McCann Deposition Testimony

Jan. 6, 2022

12   Q. Okay. Now, you didn't, you know, design
13 these flagging methodologies or choose the
14 methodologies to be used in your report, correct?
15   A. Correct.
16   Q. Those -- you designed and ran algorithms
17 on the data to get the results of a particular
18 methodology, but the methodology was given to you
19 by someone else, correct?
20   A. Correct.
21   Q. Who gave you those methodologies?
22   A. Counsel for plaintiffs.

Jan. 6, 2022 McCann CCSF Dep. at 24:12-22

May 9, 2019

6   Q. And is that also true not
7 only about whether those algorithms, the
8 assumptions, are appropriate, but also
9 true that you are not making any opinion
10 as to whether they are legally required?
11   A. Right. I think all of these
12 issues are being handled by other
13 experts. I -- as you said a minute ago.
14 And I didn't take it as a pejorative.
15 I'm just serving as a calculator.

May 9, 2019 McCann MDL Dep. at
127:18 – 128:5, 129:6–15

14   Q. Did you take any other step
15 to verify with the DEA that any or all of
16 these approaches are appropriate in this
17 setting?
18   A. I'm sorry. I don't know
19 what you mean by any other, but I didn't
20 do anything other than serve as the
21 computer, you referred to me as earlier.
22 I took these approaches and implemented
23 them, applied them to the data. That's
24 what I did.

May 9, 2019 McCann MDL Dep. at
135:14–24

3

Declaration of Craig McCann, M.D.

Updated Supplemental Table 26 Manufacturer Defendants to Dispensers in San Francisco, ARCOS Data, 2006-2014

Manufacturer	Dosage	%
Actavis	92,379,240	33.21%
Teva	10,563,189	3.80%
Allergan	1,764,900	0.63%
Cephalon	157,694	0.06%
Defendants Subtotal	**104,865,023**	**37.70%**
Other Manufacturers	173,283,285	62.30%
Total	**278,148,308**	**100.00%**

McCann Decl. Pg. 31, Updated Supplemental Table 26

Updated Supplemental Table 61 Manufacturer Defendants to Chain and Retail Pharmacies in San Francisco, ARCOS Data, 2006-2014

Manufacturer	Dosage	%
Actavis	88,416,273	46.25%
Teva	10,007,672	5.23%
Allergan	1,564,020	0.82%
Cephalon	149,314	0.08%
Defendants Subtotal	**100,137,281**	**52.38%**
Others	91,043,444	47.62%
Total	**191,180,725**	**100.00%**

McCann Decl. Pg. 32, Updated Supplemental Table 61

Declaration of Craig McCann, M.D.

Updated Supplemental Table 26 Manufacturer Defendants to Dispensers in San Francisco, ARCOS Data, 2006-2014

Manufacturer	Dosage Units	Percent
Actavis	92,379,240	33.21%
Teva	10,563,189	3.80%
Allergan	1,764,900	0.63%
Cephalon	157,694	0.06%
Defendants Subtotal	**104,865,023**	**37.70%**
Other Manufacturers	173,283,285	62.30%
Total	**278,148,308**	**100.00%**

McCann Decl. Pg. 31, Updated Supplemental Table 26

Updated Supplemental Table 61 Manufacturer Defendants to Chain and Retail Pharmacies in San Francisco, ARCOS Data, 2006-2014

Manufacturer	Dosage Units	Percent
Actavis	88,416,275	46.25%
Teva	10,007,672	5.23%
Allergan	1,564,020	0.82%
Cephalon	149,314	0.08%
Defendants Subtotal	**100,137,281**	**52.38%**
Others	91,043,444	47.62%
Total	**191,180,725**	**100.00%**

McCann Decl. Pg. 32, Updated Supplemental Table 61

"Actavis Generic Defendants"

Actavis LLC

Watson Laboratories, Inc.

Actavis Pharma, Inc.

Actavis Laboratories UT, Inc.

Actavis Laboratories FL, Inc.

Actavis Generic Medicines

Actavis Kadian LLC

Actavis Mid Atlantic LLC

Actavis Elizabeth LLC

Actavis Totowa LLC

Actavis South Atlantic LLC

Warner Chilcott Company LLC

Declaration of Craig McCann, M.D.

Updated Supplemental Table 26 Manufacturer Defendants to Dispensers in San Francisco, ARCOS Data, 2006-2014

Manufacturer	Dosage Units	Percent
Actavis	92,379,240	33.21%
Teva	10,563,189	3.80%
Allergan	1,764,900	0.63%
Cephalon	157,694	0.06%
Defendants Subtotal	104,865,023	37.70%
Other Manufacturers	173,283,285	62.30%
Total	278,148,308	100.00%

McCann Decl. Pg. 31, Updated Supplemental Table 26

Updated Supplemental Table 61 Manufacturer Defendants to Chain and Retail Pharmacies in San Francisco, ARCOS Data, 2006-2014

Manufacturer	Dosage Units	Percent
Actavis	88,416,275	46.25%
Teva	10,007,672	5.23%
Allergan	1,564,020	0.82%
Cephalon	149,314	0.08%
Defendants Subtotal	100,137,281	52.38%
Others	91,043,444	47.62%
Total	191,180,725	100.00%

McCann Decl. Pg. 32, Updated Supplemental Table 61

Declaration of Craig McCann, M.D.

Updated Supplemental Table 26 Manufacturer Defendants to Dispensers in San Francisco, ARCOS Data, 2006-2014

Manufacturer	Dosage Units	Percent
Actavis	92,379,240	33.21%
Teva	10,563,189	3.80%
Allergan	1,764,900	0.63%
Cephalon	157,694	0.06%
Defendants Subtotal	**104,865,023**	**37.70%**
Other Manufacturers	173,283,285	62.30%
Total	278,148,308	100.00%

McCann Decl. Pg. 31, Updated Supplemental Table 26

Updated Supplemental Table 61 Manufacturer Defendants to Chain and Retail Pharmacies in San Francisco, ARCOS Data, 2006-2014

Manufacturer	Dosage Units	Percent
Actavis	88,416,275	46.25%
Teva	10,007,672	5.23%
Allergan	1,564,020	0.82%
Cephalon	149,314	0.08%
Defendants Subtotal	**100,137,281**	**52.38%**
Others	91,043,444	47.62%
Total	191,180,725	100.00%

McCann Decl. Pg. 32, Updated Supplemental Table 61

Declaration of Craig McCann, M.D.

Other Manufacturers	7,141,363,130	66.44%
Total	**10,749,044,749**	**100.00%**

Updated Supplemental Table 61 Manufacturer Defendants to Chain and Retail Pharmacies in San Francisco, ARCOS Data, 2006-2014

Manufacturer	Dosage Units	Percent
Actavis	88,416,275	46.25%
Teva		
Allergan		
Cephalon		
Defendants Subtotal		
Others		
Total		

76. Before 2013, the entity commonly known as Actavis Group was a standalone entity. In late 2012 It was purchased by Watson Pharmaceuticals, Inc. After 2014 the combined company purchased Allergan, Inc. and then sold its generic opioid holdings to Teva. Those corporate transactions are not relevant to this data. Other charts in this declaration reflect the corporate owners as of the time this data was generated by the DEA. I have updated the chart below, which is also **CT4-MCCANN-DEMO-0015**, to reflect the corporate owners contemporaneous with the data presented.

McCann Decl. Pg. 32 ¶ 76

Declaration of Craig McCann, M.D.

XV. Manufacturer Attribution of Flagged Transactions

78. I was asked to attribute the flagged transactions of Distributor Defendants and some other Distributors, including AmerisourceBergen, Cardinal Health, and McKesson, to Manufacturer Defendants, based on the methods described in Section VII above.

79. **CT4-MCCANN-DEMO-0016** illustrates the results of attributing the flagged transactions to Manufacturers on a recurrent and non-recurrent basis. The non-recurrent results were derived using **P-28500** (2021.10.05)\MATLAB on Defendant data\Manufacturer Transaction Analysis and related flagging files. Those results are also shown below.

McCann Decl. Pg. 33 ¶ 78-79

Declaration of Craig McCann, M.D.

Recurrent

Methodology 1: Maximum Monthly Trailing 6 Month Pharmacy Specific Threshold – Recurrent

All Defendants

Flagged Orders – Dosage Units	119,459,765
Total Dosage Units	126,639,467
Percentage of Total Dosage Units	94.3%

Actavis

Flagged Orders – Dosage Units	108,350,340
Total Dosage Units	113,846,765
Percentage of Total Dosage Units	95.2%

* * *

Cephalon (Branded)

Flagged Orders – Dosage Units	125,422
Total Dosage Units	269,068
Percentage of Total Dosage Units	46.6%

* * *

Cephalon (Generic)

Flagged Orders – Dosage Units	69,690
Total Dosage Units	131,490
Percentage of Total Dosage Units	53.0%

Teva (Branded)

Flagged Orders – Dosage Units	7,728
Total Dosage Units	37,356
Percentage of Total Dosage Units	20.7%

Teva (Generic)

Flagged Orders – Dosage Units	9,284,745
Total Dosage Units	10,437,768
Percentage of Total Dosage Units	89.0%

Manufacturer Attribution of Flagged Transactions in Dosage Units — Recurrent

Declaration of Craig McCann, M.D.

Recurrent

Methodology 1: Maximum Monthly
Trailing 6 Month Pharmacy Specific
Threshold – Recurrent

All Defendants

Flagged Orders – Dosage Units	119,459,765
Total Dosage Units	126,639,467
Percentage of Total Dosage Units	94.3%

Actavis

Flagged Orders – Dosage Units	108,350,340
Total Dosage Units	113,846,765
Percentage of Total Dosage Units	95.2%

* * *

Cephalon (Branded)

Flagged Orders – Dosage Units	125,422
Total Dosage Units	269,068
Percentage of Total Dosage Units	46.6%

* * *

Cephalon (Generic)

Flagged Orders – Dosage Units	69,690
Total Dosage Units	131,490
Percentage of Total Dosage Units	53.0%

Teva (Branded)

Flagged Orders – Dosage Units	7,728
Total Dosage Units	37,356
Percentage of Total Dosage Units	20.7%

Teva (Generic)

Flagged Orders – Dosage Units	9,284,745
Total Dosage Units	10,437,768
Percentage of Total Dosage Units	89.0%

Nonrecurrent

Methodology 1: Maximum Monthly
Trailing 6 Month Pharmacy Specific
Threshold – Nonrecurrent

All Defendants

Flagged Orders – Dosage Units	7,149,274
Total Dosage Units	126,639,467
Percentage of Total Dosage Units	5.6%

Actavis

Flagged Orders – Dosage Units	6,384,460
Total Dosage Units	113,846,765
Percentage of Total Dosage Units	5.6%

* * *

Cephalon (Branded)

Flagged Orders – Dosage Units	13,264
Total Dosage Units	269,068
Percentage of Total Dosage Units	4.9%

* * *

Cephalon (Generic)

Flagged Orders – Dosage Units	8,160
Total Dosage Units	131,490
Percentage of Total Dosage Units	6.2%

Teva (Branded)

Flagged Orders – Dosage Units	140
Total Dosage Units	37,356
Percentage of Total Dosage Units	0.4%

Teva (Generic)

Flagged Orders – Dosage Units	647,490
Total Dosage Units	10,437,768
Percentage of Total Dosage Units	6.2%

Manufacturer Attribution of Flagged Transactions in Dosage Units — Nonrecurrent

TCA Defendants Court Exhibit 00002   McCann Decl. Pg. 34   McCann Decl. Pg. 35

12

Declaration of Craig McCann, M.D.

XVII. Actavis/Watson Flagging Algorithm

A. Actavis Flagging Algorithm – Multiplier 1.25

81. Under this approach, I identify transactions that cause the daily total Dosage Units to a pharmacy attributable to Actavis to exceed 1.25 times the average daily Dosage Units to the same pharmacy attributable to Actavis in the preceding rolling 182-day window. Any reported transactions containing the same drug code on that date and all reported transactions containing the same drug code attributable to the Actavis to that pharmacy thereafter are flagged. In this approach, and the others implemented below, I was asked to assume that the Manufacturer Defendant could have developed intelligence on shipments of its drugs to a pharmacy in San Francisco allowing it to flag suspect transactions. Applying this approach, **90%** of the total dosage units are flagged. **CT4-MCCANN-DEMO-0018 (P-28497** at Pages 427-435) shows the results of applying this algorithm.

McCann Decl. Pg. 37 ¶ 81

13

Declaration of Craig McCann, M.D.

D. Actavis/Watson Flagging Algorithm – Multiplier 1.25

84. I have been asked to apply a multiplier of 1.25 in the Watson Flagging Algorithm discussed above to Actavis-Watson Shipments after July 2011. Using this approach, **63.7%** of the total dosage units are flagged. **CT4-MCCANN-DEMO-0021 (P-28497** at Pages 454-462) shows the results of applying this algorithm.

XVIII. Red Flag Calculations for Impact Analysis

85. I was asked to calculate percentages of the 14 red flags and 7 SOMs tests attributable to Defendants and report those results by year in MME. Those results are reported in **P-04746**.

McCann Decl. Pg. 40 ¶ 85

Declaration of Craig McCann, M.D.

58. **P-29838** and **P-29839** are summaries of the ARCOS Data and Walgreens Dispensing Data and compare the total dosage units of opioid shipments into Walgreens pharmacies (from January 2007 to December 2014) to the total dosage units of opioid prescriptions dispensed by Walgreens pharmacies (from January 2007 to June 2020) in a rolling 365-day window.

X.   Red Flags on Walgreens Dispensing Data

A. 14 Red Flags

59. I was asked to implement various approaches to identify prescriptions meeting specified criteria, defined by Carmen Catizone, using the Walgreens Dispensing Data. The following criteria were used to identify prescriptions:

- **Red Flag 1**: An opioid was dispensed to a patient who traveled more than 25 miles to visit the pharmacy. The distance here is calculated from the center of the patient's zip code to the center of the pharmacy's zip code.

59. I was asked to implement various approaches to identify prescriptions meeting specified criteria, defined by Carmen Catizone, using the Walgreens Dispensing Data. The following criteria were used to identify prescriptions:

- **Red Flag 1**: An opioid was dispensed to a patient who traveled more than 25 miles to visit the pharmacy. The distance here is calculated from the center of the patient's zip code to the center of the pharmacy's zip code.
- **Red Flag 2**: An opioid was dispensed to a patient who traveled more than 25 miles to visit their prescriber. The distance here is calculated from the center of the patient's zip code to the center of the prescriber's zip code.
- **Red Flag 3**: Patient was dispensed opioid prescriptions with overlapping days of supply that were written by two or more prescribers.
- **Red Flag 4**: Patient was dispensed opioid prescriptions with overlapping days of supply at two or more pharmacies.
- **Red Flag 5**: Patient was dispensed an opioid, a benzodiazepine, and a muscle relaxer for overlapping days of supply.
- **Red Flag 6**: Patient was dispensed an opioid, a benzodiazepine, and a muscle relaxer on the same day, and all the prescriptions were written by the same prescriber.
- **Red Flag 7**: Patient was dispensed an opioid and a benzodiazepine within 30 days of one another.

- **Red Flag 8**: Patient was dispensed an opioid and a benzodiazepine on the same day, and both prescriptions were written by the same prescriber.
- **Red Flag 9**: Patient was dispensed two short-acting (or immediate release) opioid drugs on the same day.
- **Red Flag 11**: Patient was dispensed an opioid prescription of over 200 MME per day on or before December 31, 2018, or over 90 MME per day after December 31, 2018.
- **Red Flag 12**: An opioid was dispensed to at least 4 different patients on the same day, and the opioid prescriptions were for the same base drug, strength, and dosage form and were written by the same prescriber.
- **Red Flag 14**: An opioid prescription was refilled more than 5 days before the patient's previous prescription should have run out.
- **Red Flag 15**: A patient was dispensed more than 210 "days of supply" of all opioids combined in a 6-month period.
- **Red Flag 16**: A patient was dispensed an opioid and paid in cash.

Declaration of Craig McCann, M.D.

Red Flag Calculations for Impact Analysis - 14 Red Flags and 7 SOMs
San Francisco County, CA

Year	Defendant Dispensers Share of Total MMEs (ARCOS)	Defendant Dispensers Non-Recurrent Red Flag Percent of MMEs	Defendant Dispensers Recurrent Red Flag Percent of MMEs	Distributors Share of Total MMEs (ARCOS)	Distributors Non-Recurrent Red Flag Percent of MMEs (ARCOS & Defendant Data)	Distributors Recurrent Red Flag Percent of MMEs (ARCOS & Defendant Data)	Manuf. Share of MMEs	Manufacturers Non-Recurrent Red Flag Percent of MMEs (ARCOS & Other Distribution Data)*	Manufacturers Recurrent Red Flag Percent of MMEs (ARCOS)
1996					0.00%				
1997					6.56%				
1998					29.65%				
1999					26.11%				
2000					23.35%				
2001					25.58%				
2002					36.14%	96.61%		11.20%	
2003					24.30%	86.89%		17.67%	
2004					7.81%	73.52%		29.01%	
2005					13.54%	42.04%		17.32%	
2006	40.01%	83.58%	96.71%	44.54%	7.73%	71.94%	42.79%	15.37%	36.93%
2007	41.74%	85.78%	99.36%	53.69%	29.77%	88.69%	52.59%	37.72%	82.91%
2008	40.86%	86.14%	99.71%	41.65%	19.19%	89.99%	34.80%	22.53%	76.10%
2009	48.24%	87.24%	99.80%	44.29%	23.27%	90.65%	37.51%	22.57%	64.88%
2010	54.73%	88.62%	99.86%	48.06%	34.16%	92.55%	41.90%	26.69%	65.08%
2011	59.24%	87.20%	99.89%	50.65%	32.79%	92.60%	43.77%	27.44%	73.20%
2012	57.88%	87.20%	99.91%	49.15%	31.98%	93.84%	43.65%	31.56%	77.05%
2013	56.68%	85.73%	99.90%	25.90%	26.23%	94.75%	42.08%	21.48%	78.75%
2014	55.88%	83.32%	99.87%	1.65%	6.89%	96.57%	33.63%	26.38%	72.07%
2015		82.50%	99.88%					27.56%	
2016		82.26%	99.90%					26.54%	
2017		81.50%	99.90%					23.27%	
2018		80.25%	99.90%					20.56%	
2019		84.64%	99.93%						
2020		82.35%	99.90%						
1996-2010	45.51%	86.91%	99.49%	46.35%	23.93%	87.47%	41.61%	25.27%	66.07%
2006-2010	45.51%	86.91%	99.49%	46.35%	23.94%	87.50%	41.61%	25.74%	66.07%
1996-2020	50.65%	85.21%	99.76%	41.00%	26.38%	89.58%	41.42%	25.95%	70.06%
2006-2020	50.65%	85.21%	99.76%	41.00%	26.40%	89.60%	41.42%	26.20%	70.06%

Note: Total MME includes MMEs sold by non-defendants.
*1/1/2006 - 12/31/2014 is based on ARCOS data produced by DEA. Any data outside of those dates is based on transactional data produced by AmerisourceBergen (5/2002-12/2017), Anda Inc (12/1996-1/2015), Cardinal Health (1/1996-5/2018), McKesson Corporation (10/2004-12/2018), and Walgreens (1/2006-3/2014).

Callout box:

	Manufacturers Non-Recurrent Red Flag Percent of MMEs (ARCOS & Other Distribution Data)*	Manufacturers Recurrent Red Flag Percent of MMEs (ARCOS)
2007	37.72%	82.91%

McCann Decl. Pg. 41

Carmen Catizone Trial Testimony


```
21   Q.   Okay.  But you're certainly not saying that Walgreens

22   should have refused to fill every prescription that Dr. Gores

23   wrote over this 20-year period; true?

24   A.   Any prescription in which red flags were not resolved,

25   they should not have dispensed that prescription, sir.
```

5/12/2022 Trial Tr. at 897:21-25

Joseph Rannazzisi Deposition Testimony

191:18 Q. From -- Mr. Burgess says, quote --
191:19 this is on Page 76. This is hearing dated
191:20 April 29, 2014, called "Examining the Growing
191:21 Problems of Prescription Drug and Heroin Abuse
191:22 Before the Subcommittee on Oversight and
191:23 Investigations."
191:24 And, sir, now picking up on the
191:25 bottom of Page 76, Mr. Burgess says the
192:1 following, quote: I don't want to put words in
192:2 his mouth, but Mr. Rannazzisi seemed to imply
192:3 that we are overprescribing. Is that a fair
192:4 assessment of your testimony?"

192:5 Then, sir, it indicates that you
192:6 responded, quote: I think that, if you are
192:7 talking about 99.5 percent of the prescribers,
192:8 no, they are not overprescribing. But our
192:9 focus is in rogue pain clinics and rogue
192:10 doctors who are overprescribing.
192:11 Sir, do you see that?
192:12 A. Yes.
192:13 Q. Did I read that accurately?
192:14 A. Yes.
192:15 Q. Was that a statement that you made
192:16 in front of the subcommittee on oversight on
192:17 April 29, 2014?
192:19 THE WITNESS: Yes.

Plaintiff Court Ex. 4 at 191:18 - 192:17, 192:19