

Objective: Validate the values of the components of the dashboard with respect to the original database (SQL).

SQL:

Tableau:

Fatigue 1,735	Diarrhoea 1,284	Fall 1,104	Headache 1,021	Dyspnoea 949
Death 1,558	Chronic kidney disease 1,274	Product dose omission issue 911	Arthralgia 838	
	Nausea 1,233			Pneumonia 883
	Pain 1,294	Drug ineffective 1,136	Off label use 853	

2. **Test Case:** Validate the counts shown in the "Trend" line chart for a specific month (e.g., March 2020)

Query

Query History

1

2

3

▼

```
select count(report_id)
from ae_cleaned
where receive_date >= '20200301' and receive_date < '20200401'
```

Data Output

Messages

Notifications

≡+

📄

▼

📋

▼

🗑️

🗄️

⬇️

📈

SQL

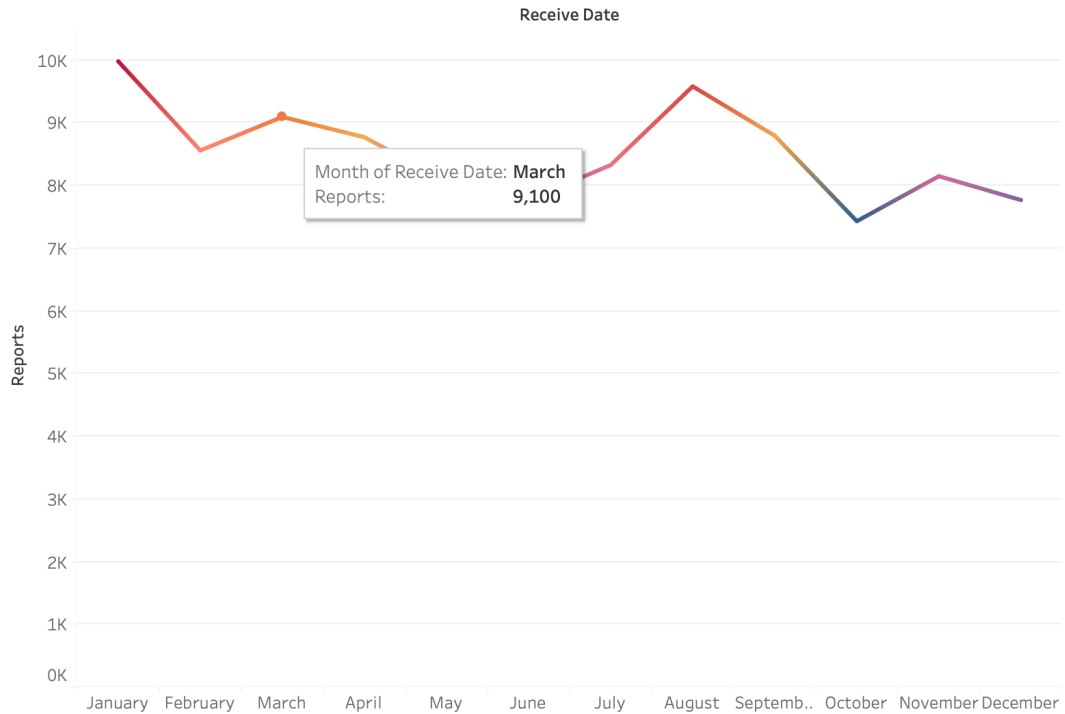
count
bigint 🔒

19100

SQL:

Tableau:

Trend



SQL:

Query Query History

```

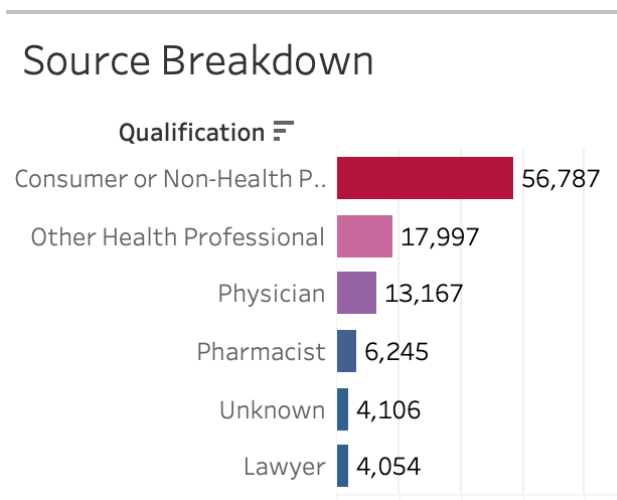
1  ✓ with ae_joined as (select
2      r.report_id, r.receive_date,
3      r.serious, s.serious_description,
4      r.report_country, r.occurrence_country,
5      r.source_qualification, sq.qualification_description,
6      r.drug_characterization, dc.drug_characterization_description,
7      r.medicinal_product, r.generic_name, r.brand_name, r.reaction
8  from ae_cleaned r
9  left join serious_codes s on r.serious = s.serious
10 left join drug_characterization_codes dc on r.drug_characterization = dc.drug_characterization
11 left join source_qualification_codes sq on r.source_qualification = sq.source_qualification
12 )
13
14 select qualification_description, count(*) from ae_joined
15 group by qualification_description
16 order by count(*) desc

```

Data Output Messages Notifications

	qualification_description character varying (100)	count bigint
1	Consumer or Non-Health Professional	56787
2	Other Health Professional	17997
3	Physician	13167
4	Pharmacist	6245
5	[null]	4106
6	Lawyer	4054

Tableau:



4. **Test case:** Serious vs Not Serious - Percentage/Count. Validate the counts or percentages in the pie chart.

SQL:

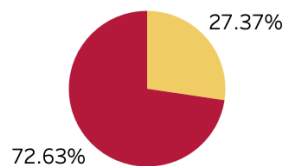
```
1 with ae_joined as (select
2     r.report_id, r.receive_date,
3     r.serious, s.serious_description,
4     r.report_country, r.occurrence_country,
5     r.source_qualification, sq.qualification_description,
6     r.drug_characterization, dc.drug_characterization_description,
7     r.medicinal_product, r.generic_name, r.brand_name, r.reaction
8 from ae_cleaned r
9 left join serious_codes s on r.serious = s.serious
10 left join drug_characterization_codes dc on r.drug_characterization = dc.drug_characterization
11 left join source_qualification_codes sq on r.source_qualification = sq.source_qualification
12 )
13
14 select serious_description, round(count(*)*100.0/total.total_count,2) as percentage
15 from ae_joined, (select count(*) as total_count from ae_joined) as total
16 group by serious_description, total.total_count
```

Data Output Messages Notifications

	serious_description character varying (20)	percentage numeric
1	Serious	72.63
2	Not Serious	27.37

Tableau:

Serious vs Not-Serious



Serious Description

- Not Serious
- Serious

5. Test case: Count the number of reports related to muscle-related events for each statin

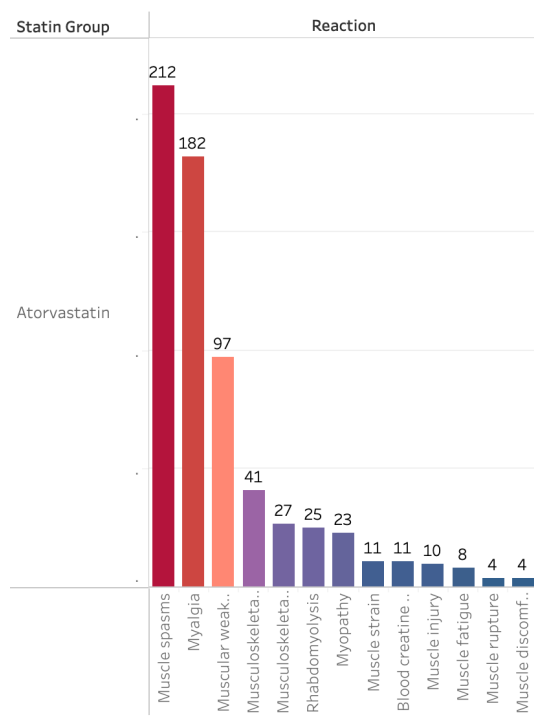
Atorvastatin:

SQL:

```
1 select reaction, count(*) from ae_cleaned
2 where reaction in (
3     'Blood creatine phosphokinase increased', 'Muscle discomfort', 'Muscle fatigue', 'Muscle injury', 'Muscle rupture',
4     'Muscle spasms', 'Muscle strain', 'Muscular weakness', 'Musculoskeletal pain', 'Musculoskeletal stiffness', 'Myalgia',
5     'Myopathy', 'Rhabdomyolysis'
6 )AND generic_name like '%ATORVASTATIN%'
7 group by reaction
8 order by count(*) desc
```

Data Output Messages Notifications		
Showing rows: 1 to 13		
	reaction text	count bigint
1	Muscle spasms	212
2	Myalgia	182
3	Muscular weakness	97
4	Musculoskeletal stiffness	41
5	Musculoskeletal pain	27
6	Rhabdomyolysis	25
7	Myopathy	23
8	Muscle strain	11
9	Blood creatine phosphokinase increased	11
10	Muscle injury	10
11	Muscle fatigue	8
12	Muscle rupture	4
13	Muscle discomfort	4

Tableau:



Rosuvastatin:

SQL:

```
1 select reaction, count(*) from ae_cleaned
2 where reaction in (
3     'Blood creatine phosphokinase increased', 'Muscle discomfort', 'Muscle fatigue','Muscle injury', 'Muscle rupture',
4     'Muscle spasms', 'Muscle strain', 'Muscular weakness', 'Musculoskeletal pain', 'Musculoskeletal stiffness', 'Myalgia',
5     'Myopathy', 'Rhabdomyolysis'
6 )AND generic_name ilike '%rosuvastatin%'
7 group by reaction
8 order by count(*) desc
```

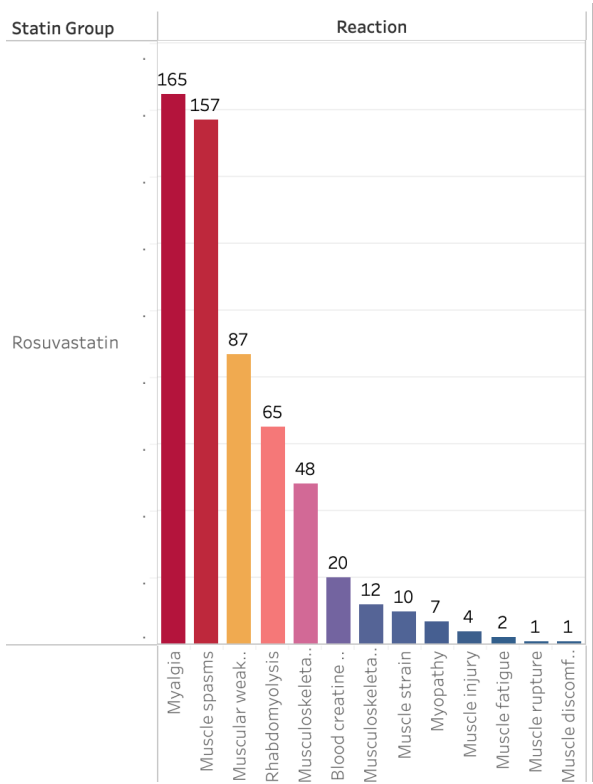
Data OutputMessagesNotifications

SQL

Showing rows: 1 to 13

	reaction text	count bigint
1	Myalgia	165
2	Muscle spasms	157
3	Muscular weakness	87
4	Rhabdomyolysis	65
5	Musculoskeletal stiffness	48
6	Blood creatine phosphokinase increased	20
7	Musculoskeletal pain	12
8	Muscle strain	10
9	Myopathy	7
10	Muscle injury	4
11	Muscle fatigue	2
12	Muscle rupture	1
13	Muscle discomfort	1

Tableau:



Simvastatin:

SQL:

```
1 select reaction, count(*) from ae_cleaned
2 where reaction in (
3     'Blood creatine phosphokinase increased', 'Muscle discomfort', 'Muscle fatigue','Muscle injury', 'Muscle rupture',
4     'Muscle spasms', 'Muscle strain', 'Muscular weakness', 'Musculoskeletal pain', 'Musculoskeletal stiffness', 'Myalgia',
5     'Myopathy', 'Rhabdomyolysis'
6 )AND generic_name ilike '%simvastatin%'
7 group by reaction
8 order by count(*) desc
```

Data OutputMessagesNotifications

SQL

Showing rows: 1 to 13

	reaction text	count bigint
1	Myalgia	111
2	Muscle spasms	100
3	Muscular weakness	78
4	Rhabdomyolysis	60
5	Musculoskeletal stiffness	55
6	Musculoskeletal pain	27
7	Myopathy	6
8	Blood creatine phosphokinase increased	5
9	Muscle strain	4
10	Muscle rupture	3
11	Muscle injury	3
12	Muscle fatigue	2
13	Muscle discomfort	1

Tableau:

