

SQL: HEDIS IMA

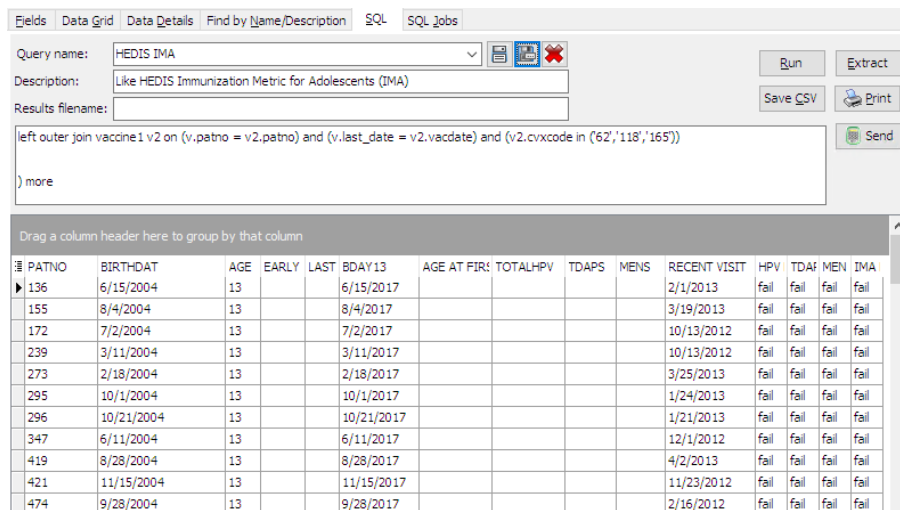
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i There are **two versions** of this SQL: Firebird and MySQL. The **MySQL version** only applies to clients who are **BETA testing MySQL**. All other Practices should continue to use the Firebird version of this code. Click to expand and copy the code you need. If you are unsure which code to use, please check with your Practice Administrator.

About

This report is similar to HEDIS Immunization Metric for Adolescents (IMA). It takes all currently-active patients who were 13 years old as of a reference date you specify, and determines whether they have had 2 or 3 HPV, at least one dose of Td/Tdap, and at least one dose of meningitis ACWY vaccine. If all three of these metrics are 'pass,' then the child also gets a 'pass' for the entire IMA measure.

A sample image of this SQL report run in the Database Viewer is shown below:



PATNO	BIRTHDAT	AGE	EARLY	LAST	BDAY13	AGE AT FIR	TOTALHPV	TDAPS	MENS	RECENT VISIT	HPV	TDAP	MEN	IMA
136	6/15/2004	13			6/15/2017					2/1/2013	fail	fail	fail	fail
155	8/4/2004	13			8/4/2017					3/19/2013	fail	fail	fail	fail
172	7/2/2004	13			7/2/2017					10/13/2012	fail	fail	fail	fail
239	3/11/2004	13			3/11/2017					10/13/2012	fail	fail	fail	fail
273	2/18/2004	13			2/18/2017					3/25/2013	fail	fail	fail	fail
295	10/1/2004	13			10/1/2017					1/24/2013	fail	fail	fail	fail
296	10/21/2004	13			10/21/2017					1/21/2013	fail	fail	fail	fail
347	6/11/2004	13			6/11/2017					12/1/2012	fail	fail	fail	fail
419	8/28/2004	13			8/28/2017					4/2/2013	fail	fail	fail	fail
421	11/15/2004	13			11/15/2017					11/23/2012	fail	fail	fail	fail
474	9/28/2004	13			9/28/2017					2/16/2012	fail	fail	fail	fail

Caveats

- Like in HEDIS, all vaccines must have been given by the 13th birthday to count.
- The report looks for patients who are CURRENTLY active (who may or may not have been active on the reference date).
- The patient's most recent sick or well visit is shown in "recent visit" so you have the option of excluding patients who have registered for your practice but you have never seen.
- Like HEDIS, it does not permit exclusions for patient refusal of vaccines.

SQL Code: Firebird

To highlight and copy the code below to your clipboard, simply click the **Copy** button.

Copy

```
select myall.*, case when hpv_metric = 'pass' and tdap_metric = 'pass' and men_metric = 'pass' then 'pass' else 'fail' end as IMA_metric from
(
```

```

select patno, birthdat, age, early_date, last_date, bday13, age_at_first, totalhpv, tdaps, mens, recent_visit, case when to
talhpv = 3 and last_date <= bday13 then 'pass' when totalhpv = 2 and months_apart >= 5 and age_at_first_shot < 15 a
nd last_date <= bday13 then 'pass' else 'fail' end as hpv_metric, case when tdaps >= 1 then 'pass' else 'fail' end as tdap
_metric, case when mens >= 1 then 'pass' else 'fail' end as men_metric

from
(
select v.patno, v.birthdat, v.age, v.recent_visit, v.bday13, v.early_date, v.last_date,

(v.early_date-v.birthdat)/365.24 as age_at_first_shot,
floor(datediff(month, dateadd(day,-extract(day from v.birthdat)+1,v.birthdat), dateadd(day,-extract (day from v.birthdat
)+1,v.early_date)))/12) as age_at_first,

datediff(month, dateadd(day,-extract(day from v.early_date)+1,v.early_date), dateadd(day,-extract (day from v.early_da
te)+1,v.last_date)) as months_apart, v.totalhpv, tdaps, mens from
(
select register.patno, register.birthdat, recent_visit, dateadd(month,156,register.birthdat) as bday13, vtotal.totalhpv, first
_HPV.early_date, last_hpv.last_date, tdaps, mens,
floor(datediff(month, dateadd(day,-extract(day from birthdat)+1,birthdat), dateadd(day,-extract (day from birthdat)+1,c
ast(:ref_date as date)))/12) as age from register

left outer join
(select min(vacdate) as early_date, patno from
(select cvxcode, patno, vacdate from vaccine1 where cvxcode in ('62','118','165') and vacdate <= :ref_date) vhrw
group by patno) first_hpv
on (first_hpv.patno = register.patno)

left outer join
(select max(vacdate) as last_date, patno from
(select vacname, patno, vacdate from vaccine1 where cvxcode in ('62','118','165') and vacdate <= :ref_date) vhrw
group by patno) last_hpv
on (last_hpv.patno = register.patno)

left outer join
(select count(cvxcode) as totalhpv, patno from vaccine1 where cvxcode in ('62','118','165') and vacdate <= :ref_date gro
up by patno) vtotal
on (vtotal.patno = register.patno)

left outer join
(select count(cvxcode) as tdaps, patno from vaccine1 inner join register on register.patno = vaccine1.patno where cvxc
ode in ('09','113','115','138','139') and vacdate <= :ref_date and vacdate <=
dateadd(month,156,register.birthdat) and vacdate >= dateadd(month,120,register.birthdat) group by patno

) ttotal
on (ttotal.patno = register.patno)

left outer join
(select count(cvxcode) as mens, patno from vaccine1 inner join register on register.patno = vaccine1.patno where cvxc
ode in ('136','147','114','32','167')
and vacdate <=
dateadd(month,156,register.birthdat) and vacdate >= dateadd(month,132,register.birthdat)
and vacdate <= :ref_date group by patno) mttotal
on (mttotal.patno = register.patno)

left outer join
(select patno, max(date1) as recent_visit from

```

```
(select patno, max(date1) as recent_visit from
  (select patno, date1 from enc_note union all select patno, date1 from physical )

group by patno) visits on (visits.patno = register.patno)
where floor(datediff(month, dateadd(day,-extract(day from birthdat)+1,birthdat), dateadd(day,-extract (day from birthda
t)+1,cast(:ref_date as date)))/12) in ( '13') and register.status_pat = 'ACTIVE'
) v
left outer join vaccine1 v1 on (v.patno = v1.patno) and (v.early_date = v1.vacdate) and (v1.cvxcodes in ('62','118','165'))
left outer join vaccine1 v2 on (v.patno = v2.patno) and (v.last_date = v2.vacdate) and (v2.cvxcodes in ('62','118','165'))

) more
order by patno
) myall
```

SQL Code: MySQL

To highlight and copy the code below to your clipboard, simply click the **Copy** button.

Copy

```
select myall.*, case when hpv_metric = 'pass' and tdaps_metric = 'pass' and men_metric = 'pass' then 'pass' else 'fail' en
d as IMA_metric from
(
select more.patno, birthdat, age, early_date, last_date, bday13, age_at_first, totalhpv, tdaps, mens, recent_visit, case w
hen totalhpv = 3 and last_date <= bday13 then 'pass' when totalhpv = 2 and months_apart >= 5 and
age_at_first_shot < 15 and last_date <= bday13 then 'pass' else 'fail' end as hpv_metric, case when tdaps >= 1 then 'p
ass' else 'fail' end as tdaps_metric, case when mens >= 1 then 'pass' else 'fail' end as men_metric
from
(
select v.patno, v.birthdat, v.age, v.recent_visit, v.bday13, v.early_date, v.last_date,
floor(timestampdiff(year,birthdat,early_date)) as age_at_first_shot,
floor(timestampdiff(year,birthdat,early_date)) as age_at_first,
floor(timestampdiff(month,early_date,last_date)) as months_apart, v.totalhpv, tdaps, mens from
(
select register.patno, register.birthdat, recent_visit,
date_add(register.birthdat, interval 156 month) as bday13,
vtotal.totalhpv, first HPV.early_date, last HPV.last_date, tdaps, mens,
floor(timestampdiff(year,birthdat,cast(:ref_date as date))) as age from register
left outer join
(select min(vacdate) as early_date, vdraw.patno from
(select cvxcodes, vaccine1.patno, vacdate from vaccine1 where cvxcodes in ('62','118','165') and vacdate <= :ref_date)
vdraw
group by patno) first HPV
on (first HPV.patno = register.patno)

left outer join
(select max(vacdate) as last_date, vdraw.patno from
(select vacname, patno, vacdate from vaccine1 where cvxcodes in ('62','118','165') and vacdate <= :ref_date) vdraw
group by patno) last HPV
on (last HPV.patno = register.patno)

left outer join
(select count(cvxcodes) as totalhpv, vaccine1.patno from vaccine1 where cvxcodes in ('62','118','165') and vacdate <= :ref_
date group by patno) vtotal
on (vtotal.patno = register.patno)
```

```
left outer join
(select count(cvxcode) as tdaps, vaccine1.patno from vaccine1 inner join register on register.patno = vaccine1.patno where cvxcode in ('09','113','115','138','139') and vacdate<= :ref_date and vacdate <= date_add(register.birthdat, interval 156 month) and vacdate >= date_add(register.birthdat, interval 120 month) group by patno
) tttotal
on (tttotal.patno = register.patno)

left outer join
(select count(cvxcode) as mens, vaccine1.patno from vaccine1 inner join register on register.patno = vaccine1.patno where cvxcode in ('136','147','114','32','167')
and vacdate <= date_add(register.birthdat, interval 156 month) and vacdate >= date_add(register.birthdat, interval 132 month)
and vacdate<= :ref_date group by patno) mttotal
on (mttotal.patno = register.patno)
left outer join
(select patno, max(date1) as recent_visit from
(select patno, date1 from enc_note union all select patno, date1 from physical ) t1

group by patno) visits on (visits.patno = register.patno)
where floor(timestampdiff(year,birthdat,cast(:ref_date as date))) in ( '13') and register.status_pat = 'ACTIVE'
) v
left outer join vaccine1 v1 on (v.patno = v1.patno) and (v.early_date = v1.vacdate) and (v1.cvxcodes in ('62','118','165'))
left outer join vaccine1 v2 on (v.patno = v2.patno) and (v.last_date = v2.vacdate) and (v2.cvxcodes in ('62','118','165'))
) more
order by patno
) myall
```