

PAT_ENC Query Checklist and Join Map

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1. Key columns

Column	Meaning	Trap
PAT_ENC_CSN_ID	Contact serial number (primary key)	Export as text, not a number
PAT_ID	Link to PATIENT	Not the MRN; merges change it
CONTACT_DATE	Contact date (datetime)	Use >= start and < next day
ENC_TYPE_C	Contact type code	Decode with ZC_DISP_ENC_TYPE
APPT_STATUS_C	Appointment status code	Null for non-appointments; decode with ZC_APPT_STATUS
DEPARTMENT_ID	Where it happened	LEFT JOIN CLARITY_DEP
VISIT_PROV_ID	Provider on visit	Can be null; LEFT JOIN CLARITY_SER
HSP_ACCOUNT_ID	Hospital account	Mainly hospital encounters
ENC_CLOSED_YN	Encounter closed	Open = incomplete documentation

2. Join map

Join to	On	Cardinality	Risk
PATIENT	PAT_ID	many : 1	Test patients
CLARITY_DEP	DEPARTMENT_ID	many : 1	Inner join drops nulls
CLARITY_SER	VISIT_PROV_ID = PROV_ID	many : 1	Null provider
PAT_ENC_DX	PAT_ENC_CSN_ID	1 : many	Fan-out; use COUNT DISTINCT
ORDER_PROC	PAT_ENC_CSN_ID	1 : many	Fan-out
PAT_ENC_HSP	PAT_ENC_CSN_ID	1 : 1	Inner join removes outpatient
HSP_ACCOUNT	HSP_ACCOUNT_ID	many : 1	Shared accounts

3. Before you count visits

- [] Write the definition of "visit" in the requirement.
- [] Filter on encounter type AND status, using lookup names, not codes.
- [] Run the null-status query to see what the filter drops.
- [] COUNT(DISTINCT PAT_ENC_CSN_ID) after any one-to-many join.
- [] Use a half-open date range. Never BETWEEN with a date-only end.
- [] Record the last Clarity extract time in the test evidence.

4. Core query patterns

Completed visits by department

```
SELECT d.DEPARTMENT_NAME, COUNT(DISTINCT e.PAT_ENC_CSN_ID) AS visits
FROM PAT_ENC e
JOIN CLARITY_DEP d ON d.DEPARTMENT_ID = e.DEPARTMENT_ID
JOIN ZC_DISP_ENC_TYPE t ON t.DISP_ENC_TYPE_C = e.ENC_TYPE_C
JOIN ZC_APPT_STATUS s ON s.APPT_STATUS_C = e.APPT_STATUS_C
WHERE e.CONTACT_DATE >= @start AND e.CONTACT_DATE < @end
      AND t.NAME = 'Office Visit' AND s.NAME = 'Completed'
GROUP BY d.DEPARTMENT_NAME;
```

Contacts the status filter would drop

```
SELECT t.NAME, COUNT(*) FROM PAT_ENC e
LEFT JOIN ZC_DISP_ENC_TYPE t ON t.DISP_ENC_TYPE_C = e.ENC_TYPE_C
WHERE e.APPT_STATUS_C IS NULL
      AND e.CONTACT_DATE >= @start AND e.CONTACT_DATE < @end
GROUP BY t.NAME;
```

Closed visits with no diagnosis

```
SELECT COUNT(*) FROM PAT_ENC e
WHERE e.ENC_CLOSED_YN = 'Y'
      AND e.CONTACT_DATE >= @start AND e.CONTACT_DATE < @end
      AND NOT EXISTS (SELECT 1 FROM PAT_ENC_DX x
                      WHERE x.PAT_ENC_CSN_ID = e.PAT_ENC_CSN_ID);
```

5. UAT reconciliation pack

Check	Pass condition
Total match vs source report	Equal within agreed tolerance (usually zero)
Null-status contacts by type	Each large type has a documented reason for exclusion
Encounters with no department or provider	Below spec threshold; owners assigned
Row count before/after each join	Unchanged for 1:1 joins; distinct CSN stable for 1:many

6. Role checklists

BA	QA	Data analyst
Define visit, appointment, contact. Name enc type and status in acceptance criteria. List excluded types in the footer.	Reconcile 3+ departments and 2 date ranges. Test boundary dates. Attach the null-status output. Record extract time.	COUNT DISTINCT after 1:many joins. Governed lookup table for categories. Hash PAT_ID in exports. Version-control queries.

PHI reminder: aggregate in SQL, apply the HIPAA minimum necessary standard, never export row-level data for a count check. Sources: HL7 FHIR R4 Encounter; HHS Minimum Necessary Requirement; Epic Clarity Data Dictionary (UserWeb).