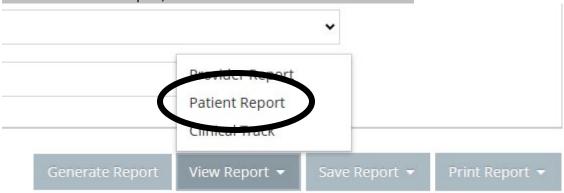# New Patient Report – Page 1
05/15/2024

The current Patient Report, found on the menu items as shown here:

A sample of which is shown here:

New River Family
1300 St. Mary's Street
Suite 502
Raleigh,NC NC 27605P: 919-833-8998
F: 919-772-2727

Account Number:
Policy Number: 23423423

Patient Name: **Portnoys Complaint**
DOB: **12/31/1969**
Age: **54**
Provider: **Karen A Williams,RN**

DOS: **May 14, 2024**

Reason for Visit
WellTrackONE Visit [portal]

Written screening schedule - 5 year Plan
The patient's written screening schedule and 5-year plan is as follows.

CATEGORY	GOALS
Blood Pressure	Measure at least yearly; goal 130/80; if diabetes, age > 65, or other medical condition, your medical provider may recommend a higher or lower goal. Discuss with your medical provider.
Weight/BMI	Age => 18 years, measure at least every 12 months. BMI goal => 18.5 and < 25
Vaccinations	Seasonal Flu Pneumonia: Pneumovax and Prevnar (once after age 65) Tdap one dose, thereafter Td (tetanus and diphtheria) every 10 years Shingrix two-dose one-time-only after age 50 COVID-19 primary series, plus booster. People with weakened immune systems may be eligible for an additional primary shot. Discuss with your medical provider.
Lab Orders	Lipid testing once every 5 years; more frequently if being treated for elevated cholesterol, diabetes, heart disease or vascular disease. Discuss with your medical provider.
Colon Cancer Screening	Colonoscopy every 10 years starting age 50 until age 75-80; more frequently and possibly at a younger age depending on family history or medical conditions. Discuss with your medical provider who may offer other testing options.
Abdominal Ultrasound	If you are a male 65 or older and have ever smoked, you may have an increased risk for an aortic aneurysm. Discuss the one-time only screening for this condition with your medical provider.
Bone Density Testing	Once every two years for persons who indicate an increased risk for osteoporosis; your provider will evaluate your medical need and your appropriate bone mass measurement; testing may be more often when medically necessary. Discuss with your medical provider.
Hepatitis C Testing	Recommended once for people born between 1945-1965. Discuss with your medical provider.
Referrals	Depending upon clinical scenario

Personalized Health Advice
The patient's personalized health advice is as follows.

CATEGORY	RECOMMENDATIONS	ACCOMPLISH BY
Nutrition	• Men and women have an increased risk for osteoporosis as they age. Consult with your provider about bone density screenings, supplements, and exercise, to help you strengthen your bones.	As directed by your provider:
Physical Strength	• Your age is 50-65. Your provider will advise you of nutrition changes that you should consider for your age group. Also, your provider will discuss preventive testing procedures for your age group such as colonoscopy.	As directed by your provider:

Needs to be replaced with a more modern, updated Patient Report that more closely mimics the Patient Report that used to be generated by the iOS THEO I product, a version of which is shown here:

Annual Personalized Wellness Plan

Patient Name: Willy Doe

MRN: 123456789A

Date: May 23, 2017

Practice: New River Family Medicine
1300 St Marys Street Suite 502 R

Healthcare Provider: Karen A Williams

Your personalized Wellness Plan is based on risk factors identified during your Annual Wellness Visit. Work with your doctor to complete each of the identified screenings and recommended counseling over the next 12 months to ensure you stay as healthy as possible. Speak with your Doctor if you have any questions about this plan.

Your Key Vital Signs

Age:	86	Blood Pressure:	137 / 88
Weight:	190 lbs.	Weight Analysis:	
Height:	5' 9" (69 inches)		
Body Mass Index (BMI):	28	Weight Loss Counseling:	

Medicare Recommended Preventive Services		Code	Your Benefit / Guidelines	Needed this year*
Immunizations / Vaccinations	Pneumonia	G0009	1 dose age 65+	Yes ☐ No ✔
	Influenza	G0008	Annually	Yes ✔ No ☐
	Shingles	90736/90471	As needed, if at risk	Yes ☐ No ✔
Diabetes Screening	Blood test	82947	w/ Sustained BP >/= 135/80	Yes ✔ No ☐
Cholesterol Testing	Blood test	82465	As needed w/ risk factors	Yes ✔ No ☐
Vision / Glaucoma Screening	Eye test	G0117/G0118	Every 2 years - age 40+	Yes ☐ No ✔
Sexually Transmitted Disease/HIV	Blood test	G0475	As needed per risk	Yes ✔ No ☐
Osteoporosis	Bone Density	76977	Routine	Yes ☐ No ✔
Colorectal Cancer Screening	Fecal Blood	G0328	Annually	Yes ☐ No ✔
	Sigmoidoscopy	G0104	Every 5 years	Yes ☐ No ✔
	Colonoscopy	G0121	Every 10 years	Yes ☐ No ✔
Breast Cancer Screening	Mammogram	G0202	Female, Every 2 years	Yes ☐ No ✔
Prostate Cancer Screening	PSA	G0103	Male, Annually	Yes ✔ No ☐

Social/Behavioral Screenings

Smoking / Tobacco Use	Counseling	99406/99407	As needed, if at risk	Yes ✔ No ☐
Alcohol Misuse Screening	Counseling	G0442	As needed, if at risk	Yes ☐ No ✔
Substance Abuse Screening	Counseling	G0396/G0397	As needed, if at risk	Yes ✔ No ☐
Cognitive Impairment Screening	Testing	96103/96120	As needed, if at risk	Yes ✔ No ☐
Depression Screening	Counseling	G0444	As needed, if at risk	Yes ✔ No ☐

Your Additional Risk Factors

Weight/BMI	Counseling	G0447/G0473	As needed, if BMI is above	Yes ☐ No ✔
Fall Risk / Mobility	Assessment	92541	As needed, if at risk	Yes ✔ No ☐
Physical Activity / Exercise	Counseling	Varies	As needed, if at risk	Yes ✔ No ☐
Nutrition / Diet	Counseling	G0270/G0271	As needed, if at risk	Yes ✔ No ☐

Advance Care Planning

Living Will & Medical Proxy	Counseling	99497	As needed, requested	Yes ✔ No ☐

*based upon your answers

This patient report needs to be available from /tablet (PreventONE), /theo (THEO II) and /portal (ConnectONE) – ALL THREE PLATFORMS!

Entry variables

You will need the following variables from the calling program in order to run the queries required to generate this data:

- Patient_ID   (For Wellness_eCastEMR_Data.dbo.PatientProfile)
- Encounter_ID   (For Wellness_eCastEMR_Data.dbo.EncounterHistory)

You will also need the following variables to fetch other data needed for the report:

- Org_ID   (For Wellness_eCastEMR_Data.dbo.OrgProfile)
- Provider_ID   (For Wellness_eCastEMR_Data.dbo.ProviderProfile)

The SQL query that generates the data you need for the report will be shown in **Attachment "A" – Patient Wellness SQL Query**. The two variables above must be initialized inside the query as @Patient_ID and @Encounter_ID prior to running the query.

They must also be initialized in the query that runs the report to give you the final data.

The programmer will need to get the header for the report as shown:

For <u>Patient Name:</u>
- SELECT FirstName, LastName, MedicalRecordNumber FROM Wellness_eCastEMR_Data.dbo.PatientProfile where Patient_ID = @Patient_ID

```
---For Patient Name:
SELECT FirstName, LastName, MedicalRecordNumber FROM Wellness_eCastEMR_Data.dbo.PatientProfile where Patient_ID = 1004410186

---For Practice Name:
SELECT OrgName FROM Wellness_eCastEMR_Data.dbo.OrgProfile WHERE Org_ID = @Org_ID

---For Provider Name:
SELECT ProviderFirst, ProviderLast FROM Wellness_eCastEMR_Data.dbo.ProviderProfile WHERE Provider_ID = @Provider_ID
```
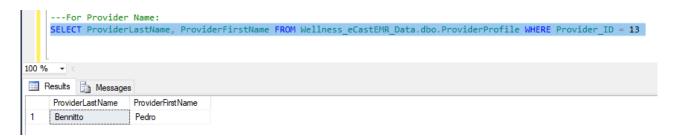
100 %

Results | Messages

	FirstName	LastName	MedicalRecordNumber
1	Giggy	Rabbit	25534435

For <u>Practice Name</u>:

➢ SELECT OrgName FROM Wellness_eCastEMR_Data.dbo.OrgProfile WHERE Org_ID = @Org_ID

```
---For Practice Name:
SELECT OrgName FROM Wellness_eCastEMR_Data.dbo.OrgProfile WHERE Org_ID = 1

---For Provider Name:
SELECT ProviderFirst, ProviderLast FROM Wellness_eCastEMR_Data.dbo.ProviderProfile WHERE Provider_ID = @Provider_ID
```

100 %

Results | Messages

	OrgName
1	New River Family

For <u>Provider Name</u>:

➢ SELECT ProviderFirstName, ProviderLastName FROM
Wellness_eCastEMR_Data.dbo.ProviderProfile WHERE Provider_ID = @Provider_ID

```
---For Provider Name:
SELECT ProviderLastName, ProviderFirstName FROM Wellness_eCastEMR_Data.dbo.ProviderProfile WHERE Provider_ID = 13
```

100 %

Results | Messages

	ProviderLastName	ProviderFirstName
1	Bennitto	Pedro

For <u>BMI</u>:

➢ The BMI formula in English units is **BMI = mass (lb) * 703 (height (in))2**[1234]. In this formula, lb stands for pound and in stands for inch[1]. When using English measurements, ounces (oz) and fractions must be changed to decimal values[2]. The formula can also be written as **BMI = (Weight in Pounds / (Height in inches x Height in inches)) x 703**[3]. The formula is used to calculate BMI by dividing weight in pounds (lb) by height in inches (in) squared and multiplying by a conversion factor of 703[4].

Formatting:

For your report output, copy the formatting, font, color, font size <u>exactly as you see it in the report</u>.

Check boxes <u>require a "check" image</u> inside the box which must be replicated exactly as shown above.

Data for Report:

To make it extremely easy for the programmer to access the data, we have provided a table called "Wellness_eCast_DataArchive.dbo.PWHistory" and "Wellness_eCast_DataArchive.dbo.PWMaster" that will render the exact set of data that you need, in the order of presentation on the report (following "SortOrder").

Here is a sample output of the query that outputs what you need to get the data for this report:

```sql
SELECT
PWM.PWMaster_ID,PWM.Category,PWM.Service,PWM.Code,PWM.Benefit,PWH.PWValue,PWH.PWNeeded,PWM.SortOrder
FROM Wellness_DataArchive.dbo.PWHistory PWH
JOIN Wellness_DataArchive.dbo.PWMaster PWM
ON PWH.PWMaster_ID = PWM.PWMaster_ID
WHERE Patient_ID = 1004373998 AND Encounter_ID = 656443 AND
(PWH.Hidden IS NULL or PWH.Hidden = 0)
ORDER BY PWH.SortOrder
```

Note that this query has the Patient_ID and Encounter_ID hard coded for illustration purposes. Your program will need to substitute those hard coded values with the variables from within your code.

The Query in Attachment "A" will be part of your code that generates this new Patient Wellness report. It does not depend upon the "Generate Report" button because it reads the stored template data directly.

```
SELECT PWM.PWMaster_ID,PWM.Category,PWM.Service,PWM.Code,PWM.Benefit,PWH.PWValue,PWH.PWNeeded,PWM.SortOrder
FROM Wellness_DataArchive.dbo.PWHistory PWH
JOIN Wellness_DataArchive.dbo.PWMaster PWM
ON PWH.PWMaster_ID = PWM.PWMaster_ID
WHERE Patient_ID = 1004373998 AND Encounter_ID = 656443 AND
(PWH.Hidden IS NULL or PWH.Hidden = 0)
ORDER BY PWH.SortOrder
```

100 % ▼ <

Results Messages

	PWMaster_ID	Category	Service	Code	Benefit	PWValue	PWNeeded	SortOrder
1	1	Vitals	Weight	Wt	NULL	255	0	10
2	2	Vitals	Height	Ht	NULL	65	0	20
3	3	Vitals	Systolic	Sys	NULL	195	0	30
4	4	Vitals	Diastolic	Dia	NULL	125	0	40
5	5	Immunizations/Vaccines	Pneumonia	G0009	1 dose age 65+		0	50
6	6	Immunizations/Vaccines	Influenza	G0008	Annually		0	60
7	7	Immunizations/Vaccines	Shingles	90736	As needed, if at risk		0	70
8	8	Diabetes Screening	Blood test	82947	w/ sustained B/P >= 130/80		0	80
9	9	Cholesterol Testing	Blood test	82465	As needed w/ risk factors		0	90
10	10	Vision/Glaucoma Screening	Eye test	G0117	Every 2 years, age 40+		0	100
11	11	Sexually Transmitted Disease/HIV	Blood test	G0475	As needed per risk		0	110
12	12	Osteoporosis	Bone density	76977	Routine		0	120
13	13	Colorectal Cancer Screening	Colonoscopy	G0121	Every 5-10 years		0	130
14	14	Breast Cancer Screening	Mammogram	G0202	Female, every 2 years		0	140
15	15	Prostate Cancer Screening	PSA	G0103	Male, annually		0	150
16	16	Smoking/Tobacco Use	Counseling	99406	As needed, if at risk		1	160
17	17	Alcohol Misuse Screening	Counseling	G0442	As needed, if at risk		0	170
18	18	Substance Abuse Screening	Counseling	G0396	As needed, if at risk		1	180
19	19	Cognitive Impairment Screening	Testing	96103	As needed, if at risk		0	190
20	20	Depression Screening	Counseling	G0444	As needed, if at risk		0	200
21	21	Weight/BMI	Counseling	G0447	As needed, if BMI out of li...		0	210
22	22	Fall Risk/Mobility	Assessment	92541	As needed, if at risk		0	220
23	23	Physical Activity/Exercise	Counseling	Varies	As needed, if at risk		0	230
24	24	Nutrition/Diet	Counseling	G0270	As needed, if at risk		0	240
25	25	Advance Directives	Counseling	99497	As needed, requested		0	250
26	26	Chronic Care Management	Counselilng	99040	As needed, requested		0	260

If you look carefully at the output of this query, and compare it to the "new" patient report, you will see that the items on the report line up perfectly with the output of this query. That is BY DESIGN.

The first four rows are the vitals for weight (lbs), height (inches), systolic (inches Hg) and diastolic (inches Hg).

The remaining rows correspond to the lines on the report.

The column "PWNeeded" is 1 if "yes" and 0 if "no". This tells you where to put the check marks in the box on the report.

Attachment "A" – Query for Patient Wellness

```sql
/*      Patient Wellness Generator
        Code to find Patient Wellness Inclusion Data
        UPDATE:            05/12/2024    PAB            New

*/
--- For Repetitious Testing Only
---DELETE FROM Wellness_DataArchive.dbo.PWHistory

---SELECT * FROM Wellness_DataArchive.dbo.PWMaster
---SELECT * FROM Wellness_DataArchive.dbo.PWMasterTBots

PRINT 'Setting up temp tables...'
USE Wellness_eCastEMR_Data
GO
DROP Table Wellness_eCastEMR_Data.dbo.tempPWTBots
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE Wellness_eCastEMR_Data.[dbo].[tempPWTBots](
        [tempPWTBots_ID] [int] IDENTITY(1,1) NOT NULL,
        [TBot] varchar(10) )
GO
CREATE INDEX tempPWTBots_idx
  ON Wellness_eCastEMR_Data.dbo.tempPWTBots(TBot)
GO

PRINT 'Got the Encounter_ID and now filling up temp table...'
SET ANSI_PADDING OFF

DECLARE @Patient_ID INT, @Encounter_ID INT, @n INT, @max INT,
        @PWCategory Varchar(50), @PWService Varchar(50), @PWCode Varchar(10),
        @PWBenefit Varchar(50),@PWNeeded SmallInt, @PWMaster_ID INT, @TDate DATE,
        @PWSortOrder SMALLINT

/* Calling code needs to run these two lines before calling this SQL Code
   Your code needs to populate these variables with the actual patient values */
SELECT @Encounter_ID = 656443
SELECT @Patient_ID   = 1004373998
```

```
--- For LIVE Production…
PRINT 'Setting PWHistory flags...'
UPDATE Wellness_DataArchive.dbo.PWHistory
SET Hidden          = 1 WHERE
Patient_ID          = @Patient_ID AND
Encounter_ID        = @Encounter_ID

/* End of code needed by calling code */

/* This is a required value for PWHistory */
SELECT @TDate = GetDate()

/* This block will fetch the vitals and INSERT them into PWHistory*/
PRINT 'Inserting first 4 rows of PWHistory...'

INSERT INTO Wellness_DataArchive.dbo.PWHistory
(PWMaster_ID, Patient_ID, Encounter_ID, PWDate, PWNeeded, PWValue, SortOrder, Hidden)
VALUES
(1,@Patient_ID,@Encounter_ID,@TDate,0,'Weight:    ',10,0),
(2,@Patient_ID,@Encounter_ID,@TDate,0,'Height:    ',20,0),
(3,@Patient_ID,@Encounter_ID,@TDate,0,'Systolic:  ',30,0),
(4,@Patient_ID,@Encounter_ID,@TDate,0,'Diastolic: ',40,0)

PRINT 'Now updating first 4 rows of PWHistory with correct vitals values...'

--- Weight
UPDATE PWH
SET PWH.PWValue = E3I.ETL3Input
FROM Wellness_DataArchive.dbo.PWHistory PWH
INNER JOIN Wellness_eCastEMR_Data.dbo.ETL3Input E3I ON PWH.Encounter_ID = E3I.Encounter_ID
INNER JOIN Wellness_eCastEMR_Template.dbo.TML3 T3 ON E3I.TML3_ID = T3.TML3_ID
INNER JOIN Wellness_eCastEMR_Template.dbo.TML2 T2 ON T3.TML2_ID = T2.TML2_ID
INNER JOIN Wellness_eCastEMR_Data.dbo.ETL1 E1 ON T2.TML1_ID = E1.TML1_ID
WHERE PWH.PWMaster_ID = 1
AND E1.Encounter_ID = @Encounter_ID
AND T2.TML2_HeaderMaster_ID = 33
AND T3.TML3_TBotMaster_ID = 424;

--- Height
UPDATE PWH
SET PWH.PWValue = E3I.ETL3Input
FROM Wellness_DataArchive.dbo.PWHistory PWH
INNER JOIN Wellness_eCastEMR_Data.dbo.ETL3Input E3I ON PWH.Encounter_ID = E3I.Encounter_ID
INNER JOIN Wellness_eCastEMR_Template.dbo.TML3 T3 ON E3I.TML3_ID = T3.TML3_ID
INNER JOIN Wellness_eCastEMR_Template.dbo.TML2 T2 ON T3.TML2_ID = T2.TML2_ID
INNER JOIN Wellness_eCastEMR_Data.dbo.ETL1 E1 ON T2.TML1_ID = E1.TML1_ID
WHERE PWH.PWMaster_ID = 2
AND E1.Encounter_ID = @Encounter_ID
AND T2.TML2_HeaderMaster_ID = 33
AND T3.TML3_TBotMaster_ID = 423;
```

```sql
--- Systolic
UPDATE PWH
SET PWH.PWValue = E3I.ETL3Input
FROM Wellness_DataArchive.dbo.PWHistory PWH
INNER JOIN Wellness_eCastEMR_Data.dbo.ETL3Input E3I ON PWH.Encounter_ID = E3I.Encounter_ID
INNER JOIN Wellness_eCastEMR_Template.dbo.TML3 T3 ON E3I.TML3_ID = T3.TML3_ID
INNER JOIN Wellness_eCastEMR_Template.dbo.TML2 T2 ON T3.TML2_ID = T2.TML2_ID
INNER JOIN Wellness_eCastEMR_Data.dbo.ETL1 E1 ON T2.TML1_ID = E1.TML1_ID
WHERE PWH.PWMaster_ID = 3
AND E1.Encounter_ID = @Encounter_ID
AND T2.TML2_HeaderMaster_ID = 33
AND T3.TML3_TBotMaster_ID = 425;

--- Diastolic
UPDATE PWH
SET PWH.PWValue = E3I.ETL3Input
FROM Wellness_DataArchive.dbo.PWHistory PWH
INNER JOIN Wellness_eCastEMR_Data.dbo.ETL3Input E3I ON PWH.Encounter_ID = E3I.Encounter_ID
INNER JOIN Wellness_eCastEMR_Template.dbo.TML3 T3 ON E3I.TML3_ID = T3.TML3_ID
INNER JOIN Wellness_eCastEMR_Template.dbo.TML2 T2 ON T3.TML2_ID = T2.TML2_ID
INNER JOIN Wellness_eCastEMR_Data.dbo.ETL1 E1 ON T2.TML1_ID = E1.TML1_ID
WHERE PWH.PWMaster_ID = 4
AND E1.Encounter_ID = @Encounter_ID
AND T2.TML2_HeaderMaster_ID = 33
AND T3.TML3_TBotMaster_ID = 426;


/* Mow insert rows into tempPWTBots */
PRINT 'Setting all other report values in tempPWTBots...'
INSERT INTO Wellness_eCastEMR_Data.[dbo].[tempPWTBots]
SELECT CONCAT(TM.TML3_TBotMaster_ID,'-',TM.TML3_TBotData) FROM
Wellness_eCastEMR_Data.dbo.ETL3 ET
JOIN Wellness_eCastEMR_Template.dbo.TML3 TM ON ET.TML3_ID = TM.TML3_ID
JOIN eCastMaster.dbo.TBotMaster TB ON TM.TML3_TBotMaster_ID = TB.TBotMaster_ID
WHERE ET.Encounter_ID      = @Encounter_ID
```

```sql
PRINT 'Starting the loop through PWMaster...'
SELECT @n = 5  --- Skip first 4 rows which are Vitals
SELECT @max = COUNT(*) FROM Wellness_DataArchive.dbo.PWMaster
WHILE @n <= @max
  BEGIN
    PRINT 'Looping through PWMaster...'
        --- Load up your variables for the INSERT into PWHistory
        SELECT
            @PWMaster_ID        =       PWMaster_ID,
            @PWCategory         =       Category,
            @PWService          =       Service,
            @PWCode             =       Code,
            @PWBenefit          =       Benefit,
            @PWNeeded           =       0,
            @PWSortOrder        =       SortOrder
            FROM Wellness_DataArchive.dbo.PWMaster WHERE PWMaster_ID = @n
    ---
        --- Now run the INTERSECT of the two SELECTS and if the results is not zero
        --- you have a HIT - so then you INSERT that into PWHistory


    SELECT TBot FROM Wellness_DataArchive.dbo.PWMasterTBots TB WHERE TB.PWMaster_ID = @n
    INTERSECT
    SELECT TBot FROM Wellness_eCastEMR_Data.dbo.TempPWTBots TTB


--- Check to see if the INTERSECT resulted in some rows found.  You will add a PWHistory
row for every PWMaster record but it's the "PWNeeded" value that is 0/1
    IF @@ROWCOUNT <> 0    -- If you DID find a hit, you want to alert
                          == the patient that this category is needed this year

    BEGIN  -- If you get here you want to set @PWNeeded to 1
        SELECT @PWNeeded = 1
    END

    PRINT 'Adding the Patient Wellness Item as "Required" or "Not Required" to
PWHistory'
    INSERT INTO Wellness_DataArchive.dbo.PWHistory

    (PWMaster_ID,Patient_ID,Encounter_ID,PWDate,PWNeeded,PWValue,SortOrder,Hidden)
    VALUES
    (@PWMaster_ID,@Patient_ID,@Encounter_ID,@TDate,@PWNeeded,'',@PWSortOrder,0)


--- Now you have ONE row in PWHistory matching every row in PWMaster, with the
--- PWNeeded flags set either 0 or 1

    SELECT @n = @n + 1  -- Bump the counter that pushes through CTracksMaster's rows
  END
PRINT 'While Loop through PWMaster complete...'
```

```
---The magic query that gives you the output for the report
---Replace hard coded values with correct variables

SELECT
PWM.PWMaster_ID,PWM.Category,PWM.Service,PWM.Code,PWM.Benefit,PWH.PWValue,PWH.PWNeeded,PWM.
SortOrder
FROM Wellness_DataArchive.dbo.PWHistory PWH
JOIN Wellness_DataArchive.dbo.PWMaster PWM
ON PWH.PWMaster_ID = PWM.PWMaster_ID
WHERE Patient_ID = 1004373998 AND Encounter_ID = 656443 AND
(PWH.Hidden IS NULL or PWH.Hidden = 0)
ORDER BY PWH.SortOrder
```