Microsoft Cloud for Healthcare in a Day

Lab 01: Care Management

Step-by-Step Lab

April 2021

Contents

Overview

Prerequisites

Note: If you are in an official training, the environment has been set up and provided to you.

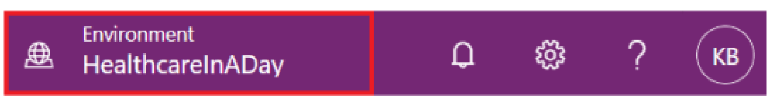
This is the **first** lab in a series covering the Microsoft Cloud for Healthcare. These labs follow a sequence of presentations covering an overview of Microsoft Cloud for Healthcare, Solution Center installation, and the Healthcare Data model. Before beginning this lab, confirm that you have provisioned an environment with the necessary components installed as described in following two links:

- Deploy Microsoft Cloud for Healthcare solutions powered by Dynamics 365
- Microsoft Cloud for Healthcare Licensing

Before You Begin

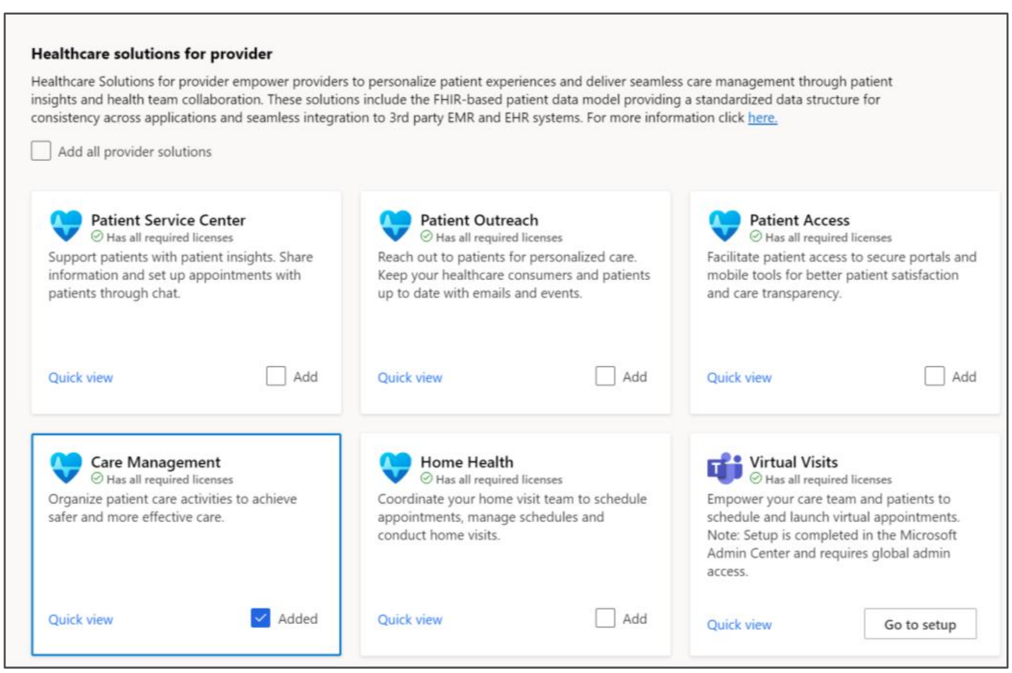
Note: If you're in an official training the user credentials and environment name have been provided to you.

1. You must be connected to the internet.
2. Open an internet browser in either In-Private or Incognito mode.
3. Navigate to Power Apps and sign-in with your user credentials.
4. Select the correct environment from the upper-right Environment drop down.



Microsoft Cloud Solution Center

This lab focuses on the **Care Management** healthcare solution from Microsoft Cloud Solution Center.



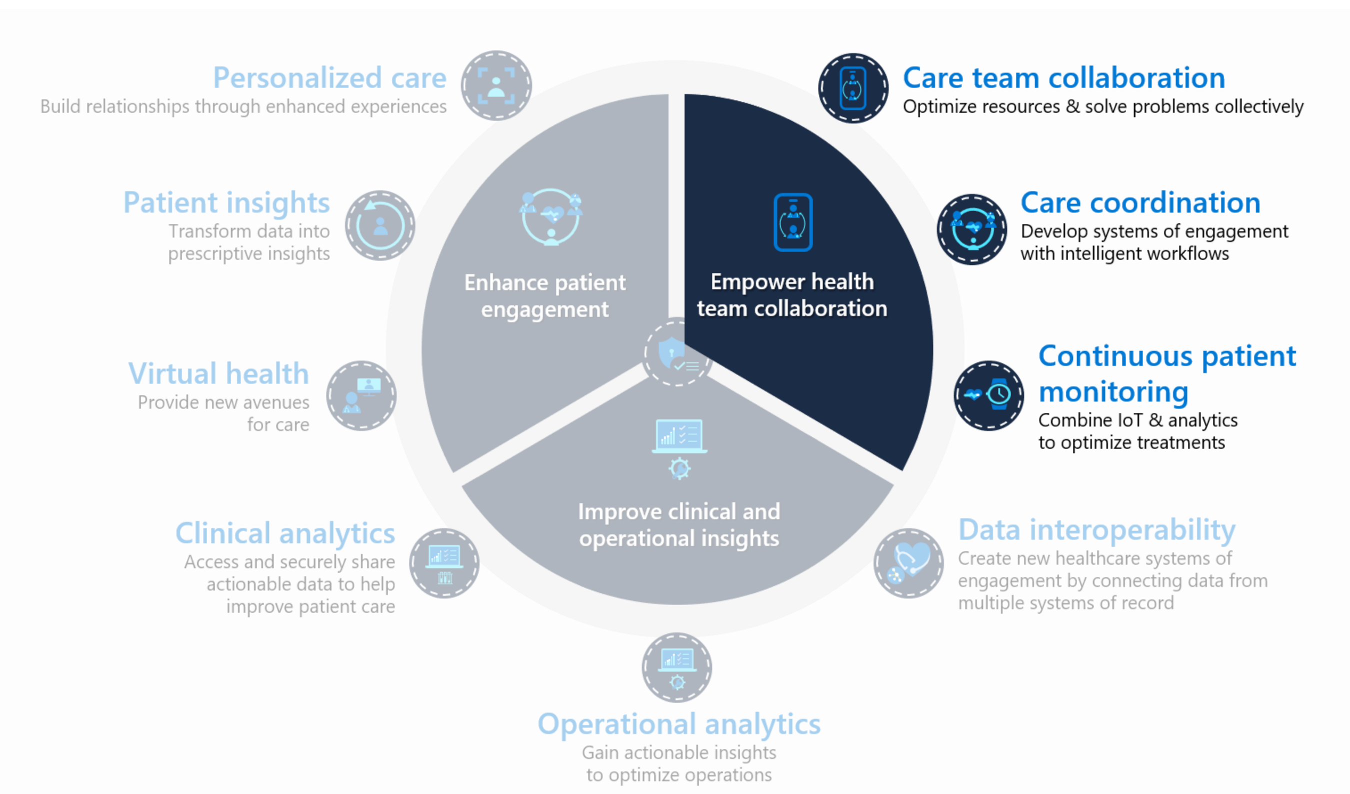
The Care Management solution helps providers coordinate care plans and care teams. They can create, personalize, and enable new care plans and manage care team members in the Care Management or Care Team Member applications, allowing for capabilities in three categories:

1. Administration for managing organizational data.
2. Care Management to support delivering care to patients.
3. Clinical Data to manage medical information, such as allergies and medical records.

This lab will explore the Healthcare Data Model and highlight where a care coordinator may navigate Patient 360 information on a form while providing care. It will also show you how to customize the form and sitemap to provide more data and insight.

Industry Prioritized Scenarios

Care Management focuses on the **Empower health team collaboration** priority scenario by creating a system that allows for enhanced care team collaboration and coordination.



Recommended Resources

The following resources provide a full understanding of the Microsoft Cloud for Healthcare and its components and are helpful general resources:

- [Microsoft Cloud for Healthcare]
- [Microsoft Cloud for Healthcare Documentation]

The following additional resources may be helpful throughout the course of the lab:

- [Care Management: Coordinate care plans and care teams]

Goals

After this lesson you will be able to do the following:

- Understand key tables of Healthcare data model for Care Management.
- Navigate Care Management application
- Extend Care Management model-driven application

The estimated time to complete this lab is **50** minutes.

Exercise 1: Explore Patient 360 Information in Care Management App

Communicate the right information, at the right time, to the right people, to provide safe and effective care to the patient. Easily create, personalize, and enable new care plans for patients, and manage care team members.

Key capabilities for Care Management include:

- **Care team:** View the care team collaborating to provide the best care for the patient and reach out to them directly through Microsoft Teams.
- **Care plan:** Create and assign care plans and automate adherence to improve care for your patients.
- **Care Plan Timeline:** Ability to view clinical events in a sequential fashion for the purposes of understanding what events have taken place to discern what should be the next plan of action and/or avoid duplication.

In the **Health Analytics** dashboard, the Care Coordinator Dashboard is a template for viewing care plan specifics, appointments, and a personalized timeline.

In this Exercise, you will use Care Management App and login as a Care Coordinator to navigate and do the following.

1. View **Patient 360 Dashboard** to view the recent **Appointment EMR** created for patients and assigned to Practitioner.
2. View **Organizations (Provider)** details and onboard new branch location to link it with Organization.
3. How to Create Patient data along with **encounter** details to provide a better health service to patient and access other patient clinician data like **observations**, **conditions,** and allergy intolerance etc.
4. How to Create Practitioner data and view existing practitioner data with **appointments** assigned and **procedures** performed by practitioner.
5. Add Care Plan, Care Team, and associate members i.e., Patient, one or more Practitioner, patient Related person, Nurses etc.

Task 1: View Patient 360 Dashboard for Appointments and Care Plan activities

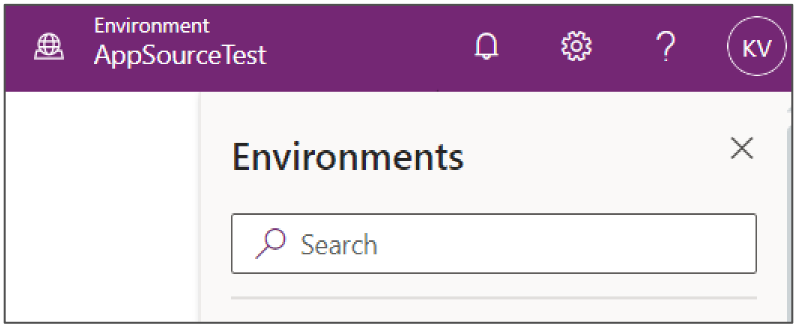
In this task, you will play the role of a Care Coordinator who would like to view all Open Appointment EMRs and Care Plan Activities within the Care Management App

1. Sign-in to **Power Apps** and navigate to your environment.

   a. Open browser with **InPrivate** window for **Edge** browser or Incognito for Chrome browser.

   b. Login to Power Apps.

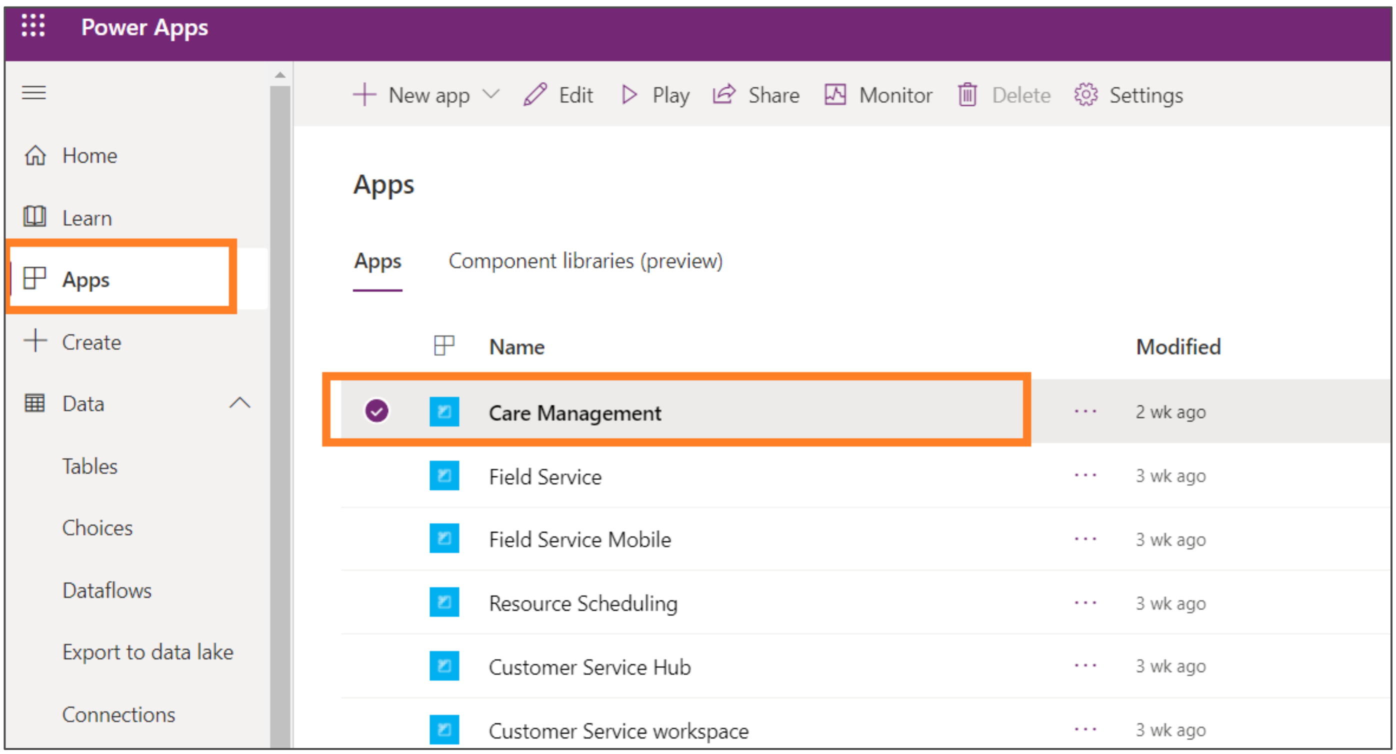
   c. Choose your environment where **Care Management** app is installed.



2. Open the **Care Management** App

    a. Navigate to the **Apps** section on the sitemap.

    b. Click to open **Care Management** from the Apps list (Refer the below picture)



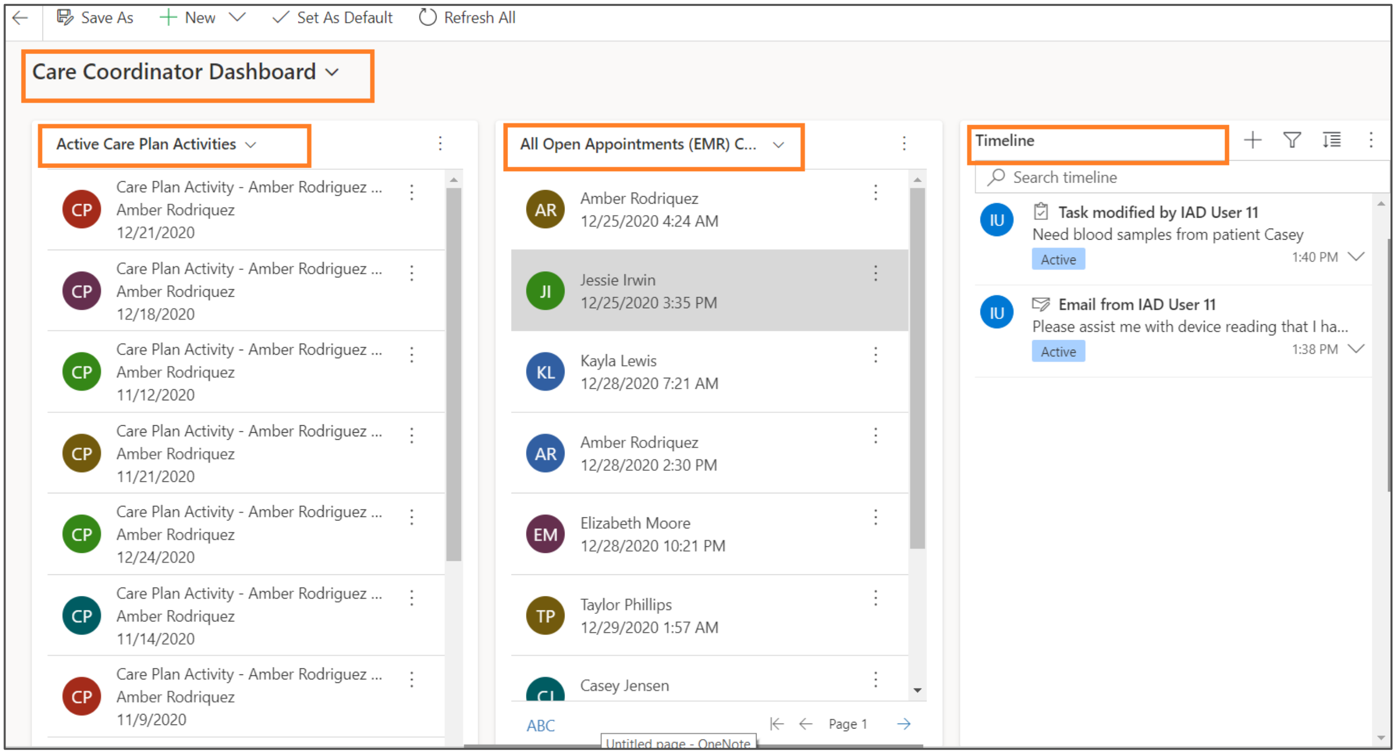
    c. Once you have opened Care Management, navigate to **Health Analytics** on the left navigation panel.

    d. By default, it opens the "**Care Coordinator Dashboard**" with below sample data (refer below picture)

    - "**Active Care Plan Activities**" – Shows the glimpse of all the recent Care plan activities with **Activity Title** with **Patient Full name** and **Schedule date**.

    - "**All Open Appointment EMR and Timeline**" – Shows the glimpse of All the recent open **Appointments with Patient and practitioner** information.

e. The Care coordinator can also see the other aspects of Activities and Appointment EMR data by changing the views on the dashboard. i.e., "**Patient Details All Appointments EMR**", "**Closed Appointment EMR",** etc.



Task 2: Create a new Provider Location and Physician

In this task, you will continue to get to know the Healthcare Data Model by creating a new branch **Location** for **Lamna Healthcare Company**. Then, you will create new **Practitioner** and **Patient** records.

Although it's not common for the Care Coordinator to manually enter healthcare data since it usually exists in healthcare data sources and can be synced directly into Dataverse to be used in the Microsoft Cloud for Healthcare. For today's purposes, you will be entering data to help learn the data model schema behind core tables within the Microsoft Cloud for Healthcare, along with their main attributes, and relationships.

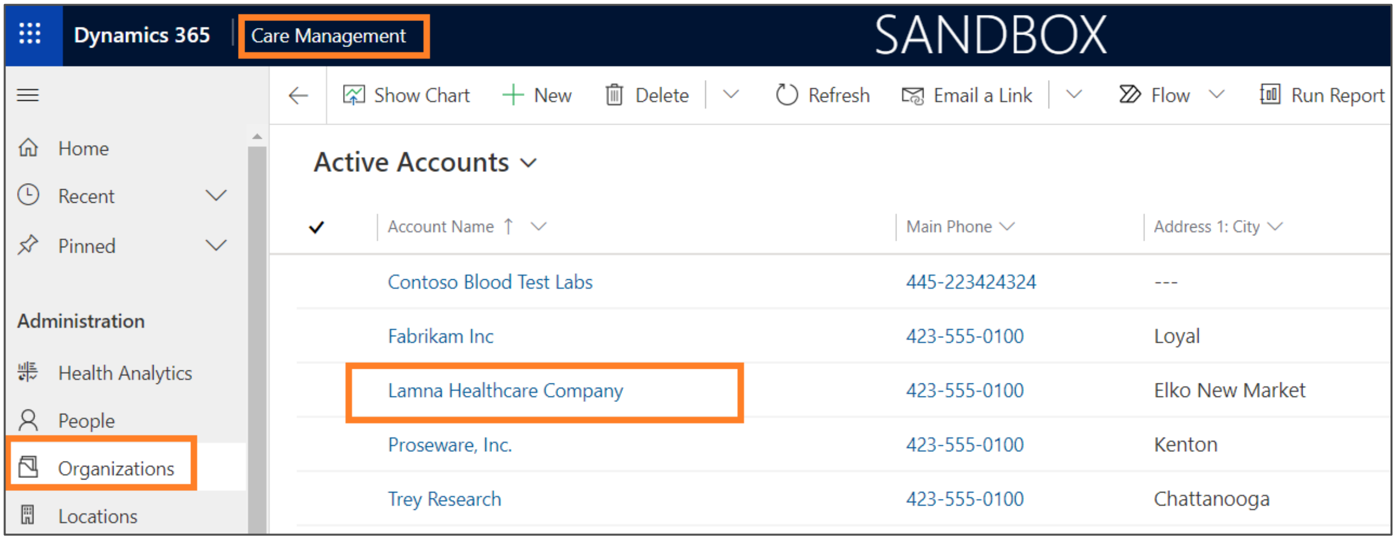
With Azure API for FHIR, you can securely transfer that data into Dataverse once it's located on the FHIR Server. You will learn more about this topic in Lab 06: Azure FHIR Sync Agent. For now, we will focus on the healthcare common data model.

1. Create a new **Location** record for Lamna Healthcare Company in the **Care Management** App

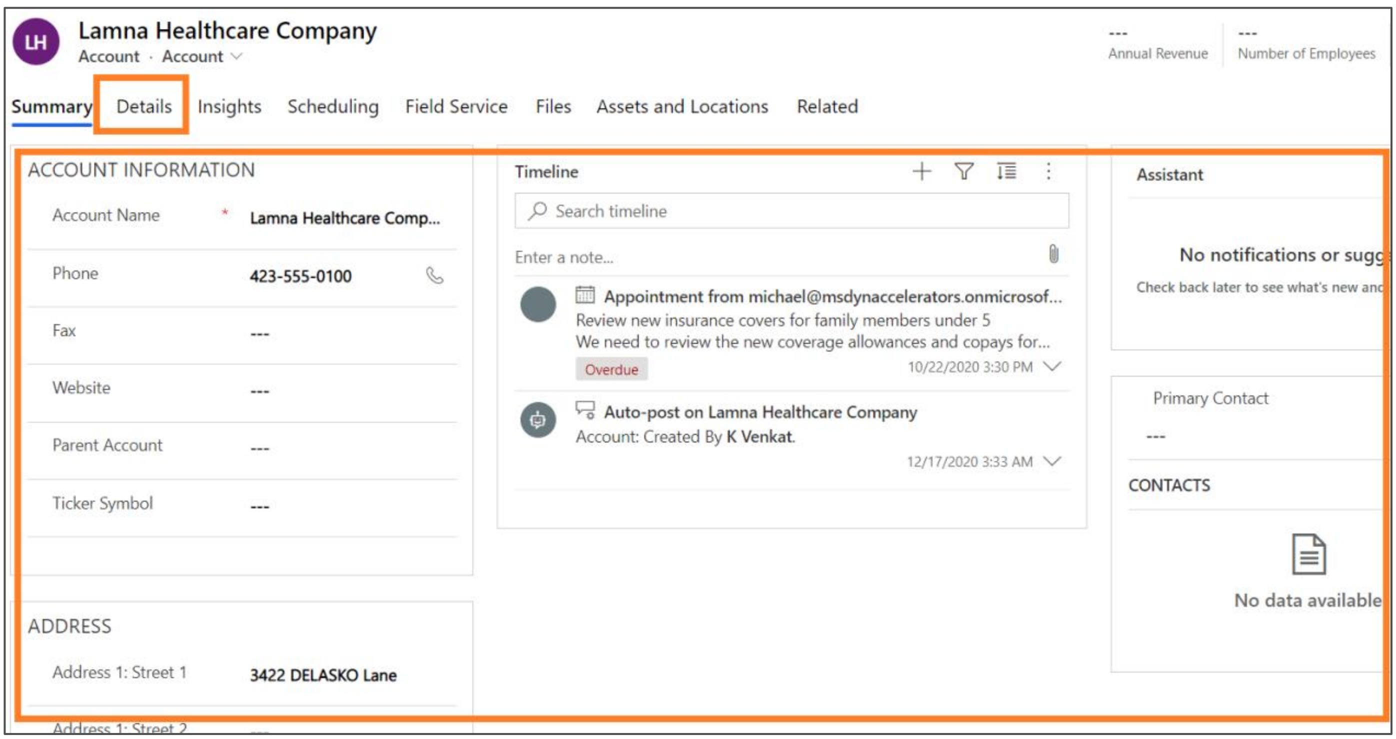
   1. View **Care Provider (Organizations**) data: Now that you have opened **Care Management** App, Let's go and view the **Lamna Healthcare Company** record.

   2. Navigate to the Sitemap on the left navigation panel and click **Organizations.**

   3. Ensure **Active Accounts** view selected and then click to open **Lamna Healthcare Company**.



4. Take a moment to review the **Summary** and **Details** tab view details of **Lamna Healthcare Company**.



5. Create a new **Location** record and link it to **Lamna Healthcare Company** by performing the following steps:

   a. Navigate to the Sitemap on the left navigation panel and click **Locations.**

   b. Click to **New** button to create new Location for Lamna Healthcare Company

   c. Enter the following details for the new **Location**:

      i. **Name**: Contoso Blood Test Lab

      ii. **Address 1**: 138 Littleton St

iii. **Address City**: Huntington

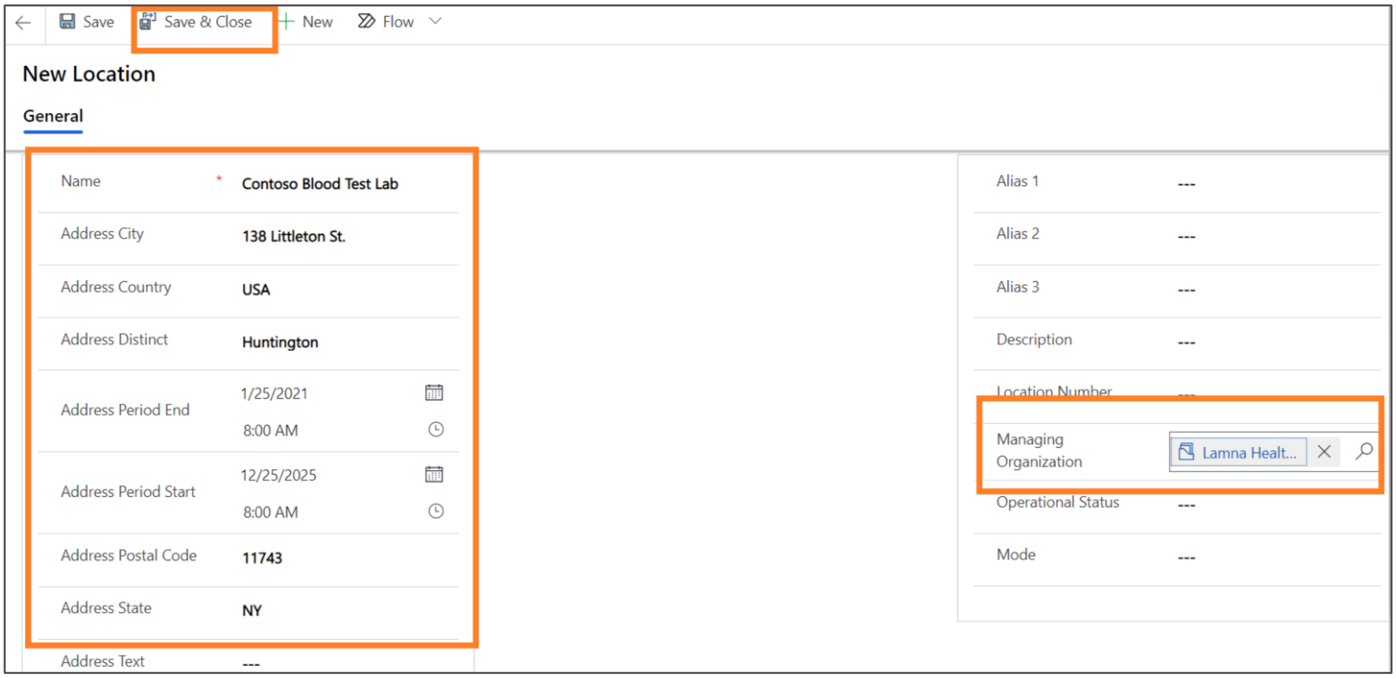
iv. **Address State**: NY

v. **Address Country**: USA

vi. **Address Period Start & End**: Any Date

vii. **Managing Organization**: Lamna Healthcare Company

d. Click **Save & Close**.

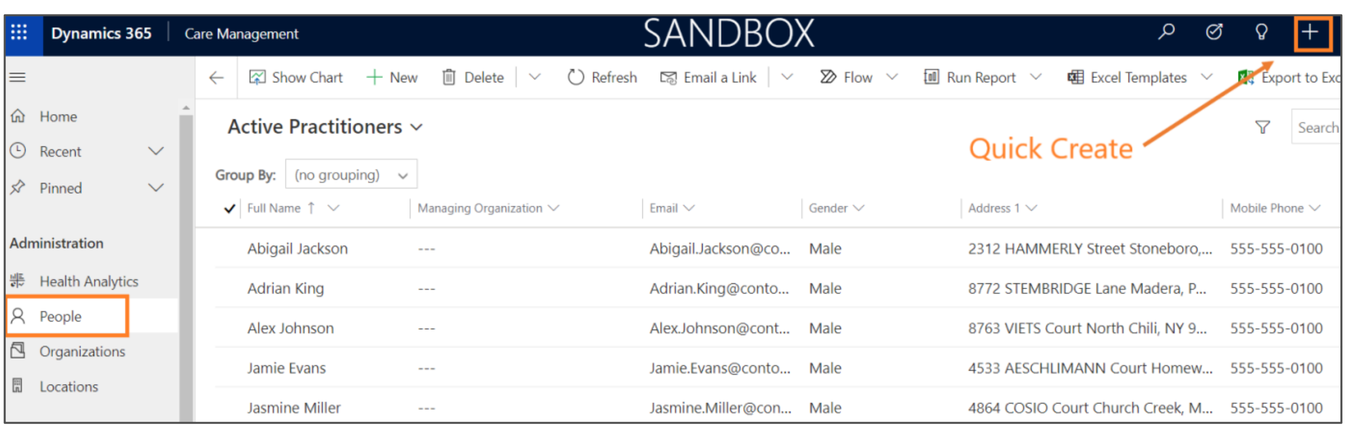


6. We will continue you to get to know the Healthcare Data Model by creating a new **Practitioner** record in the **Care Management** App

   a. Click **People** in the Sitemap

   b. Ensure **Active Practitioners** view is selected as it loads by default "Active Patients" view.

   c. Quick Create (**+**) New **Practitioner**



d. **Create** a new **Practitioner** record by filling out the following information:

i. **Contact Type**: Practitioner

ii. **First Name**: John

iii. **Last Name**: Smith

iv. **Email**: johnsmith@contosolab.com

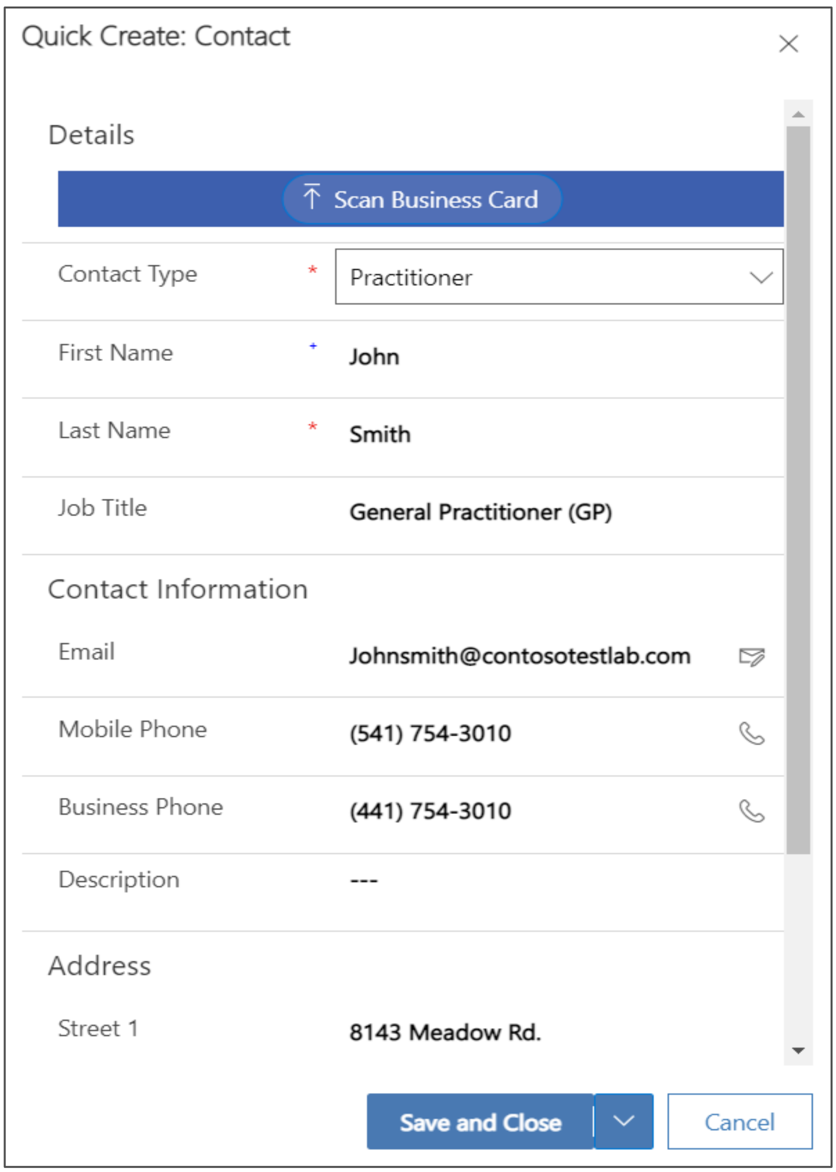
v. **Job Title**: General Practitioner

vi. **Address**: 8143 Meadow Rd, New York, NY, 10031

vii. **Mobile Phone**: (541) 754-3010

viii. **Business Phone**: (441) 754-3010

e. Click **Save & Close**.



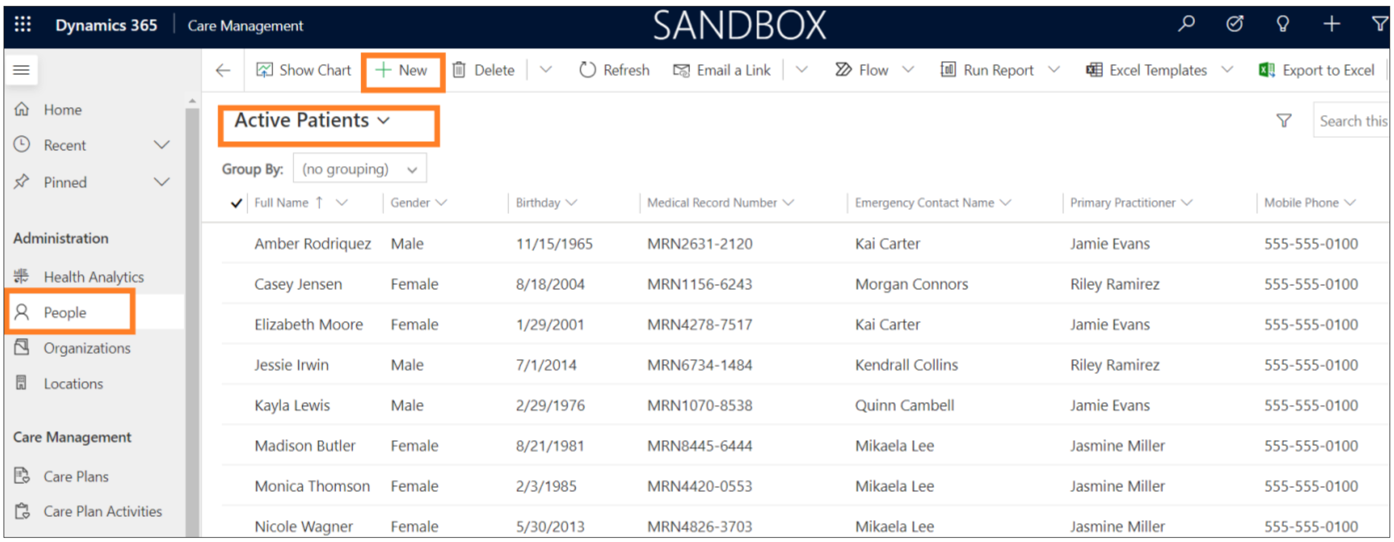
Task 3: Add Patient information in Care Management App

In this task you continue to walkthrough the Healthcare Data Model by creating a new **Patient** and **Patient Encounter** record in the **Care Management** app, then assigning it a **Care Plan** and a **Care Team** based on the patient's details.

1. Create a new **Patient** record in **Care Management** app by performing the following steps:

    a. Navigate to the Sitemap on the left navigation panel and click **People**.

    b. Click the **New** button.



    c. Ensure the **Patient form** is selected, otherwise the first field might be locked.

    d. **Create** a new **Patient** record by filling out the following information:

        i. **Contact Type:** Patient

        ii. **First Name:** Emma

        iii. **Last Name:** Williams

        iv. **Primary Practitioner:** John Smith

        v. **Household:** Lamna Healthcare Company

        vi. **Medical Record Number:** MRN2631-210020

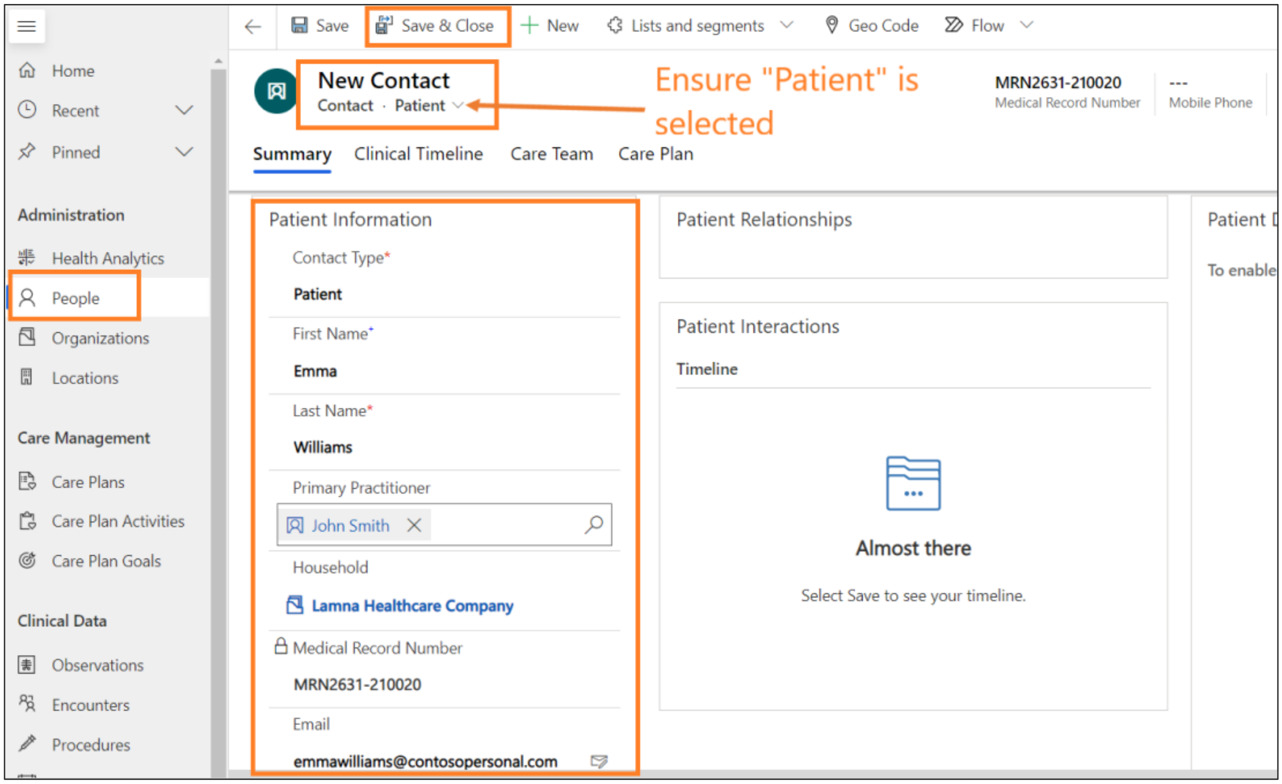
        vii. **Email:** emmawilliams@contosopersonal.com

        viii. **Address:** 4 Illinois Drive, Bronx, NY 10452, USA

        ix. **Mobile Phone:** (561) 754-3010

        x. **Business Phone:** 431) 754-3010

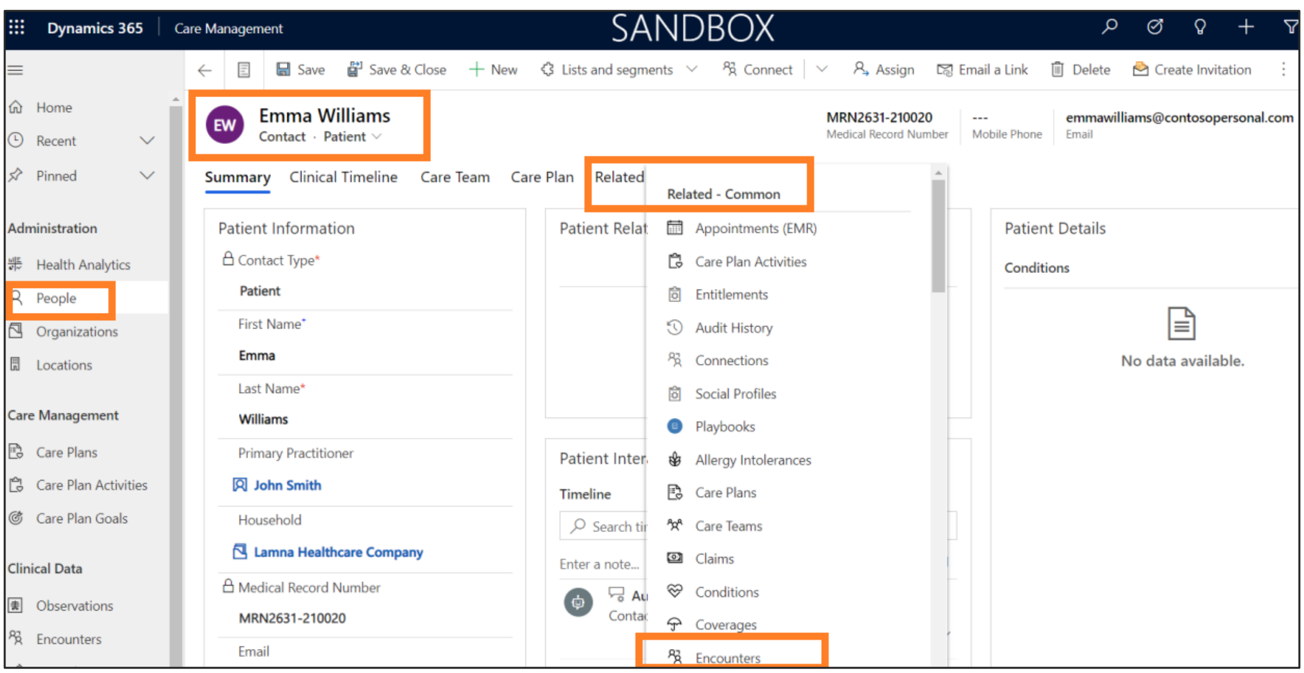
    e. Click **Save**.



2. Create new **Patient Encounter** information in the **Care Management**, Encounter Form

   a. While on the "Emma Williams" patient record, click **Related** Tab.

   b. In the Sub-menu, select **Encounters**.



   f. Click **New Encounter**

   g. Enter the following details for the new encounter:

      i. **Name**: Regular Test

ii. **Patient**: Emma Williams

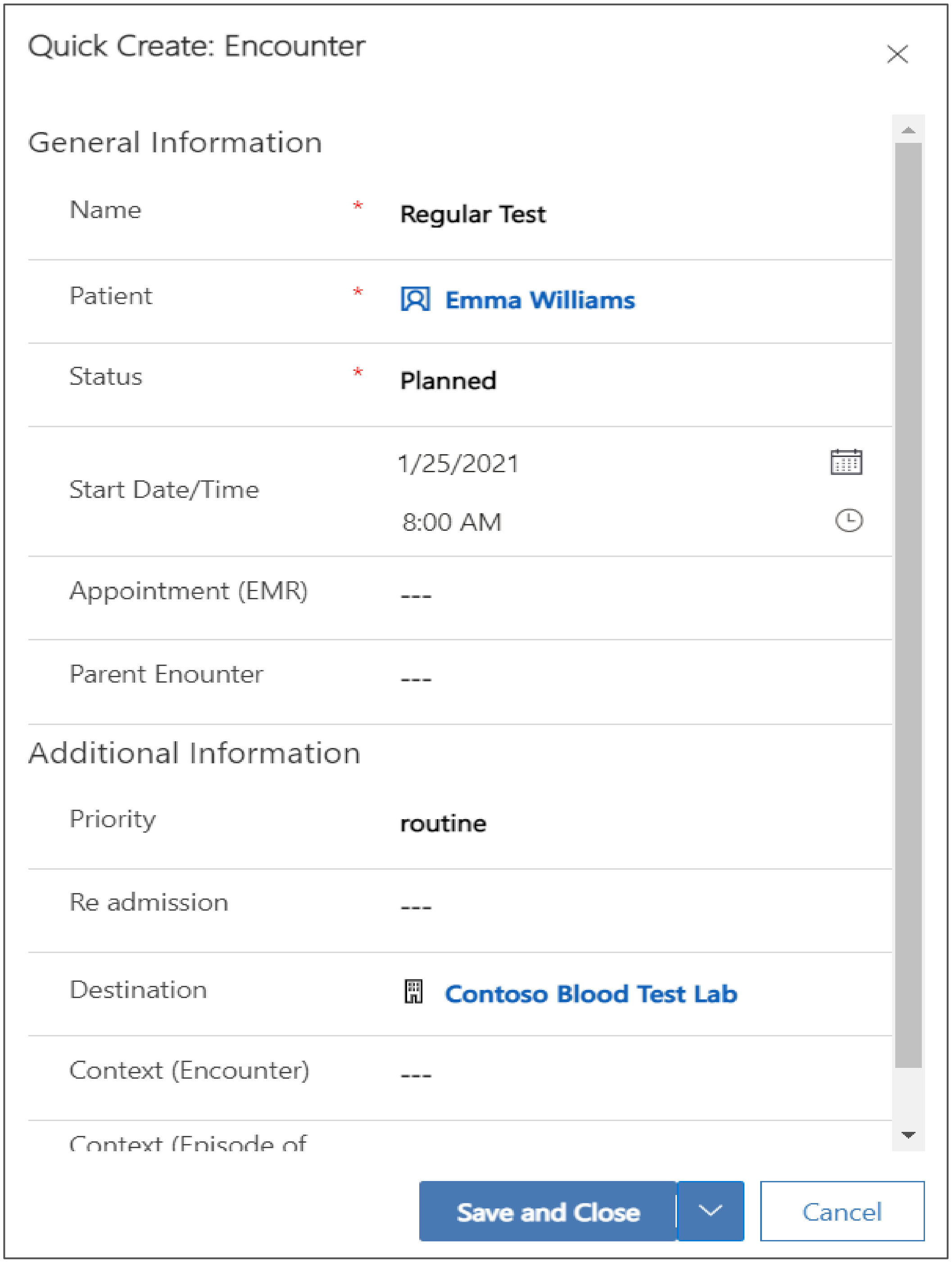
iii. **Status**: Planned

iv. **Start Date/Time**: Choose a date and time

v. **Priority**: Routine

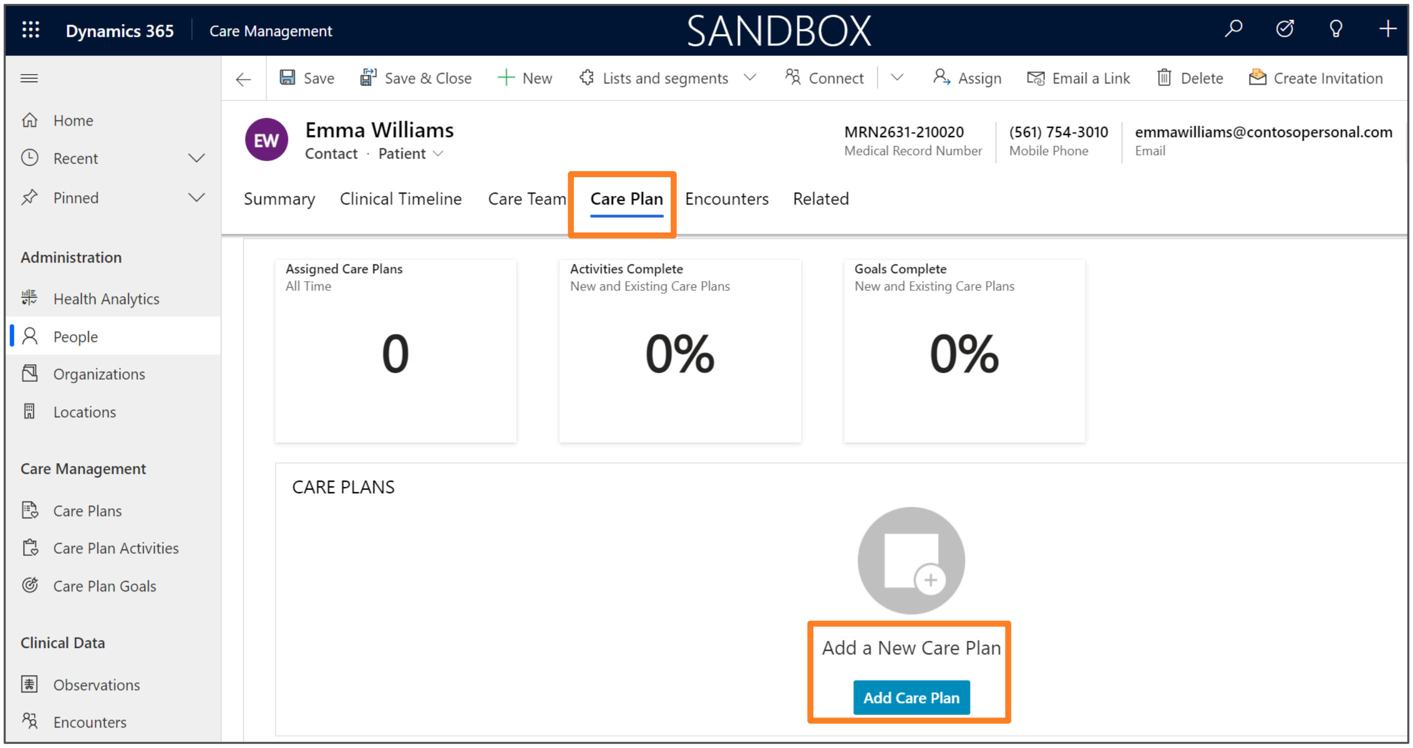
vi. **Destination**: Contoso Blood Test Lab

h. Click **Save & Close**.



3. We will continue our exploration of Patient 360 information by creating a new **Care Plan** and **Care Plan Team** for the Patient that we created in the previous step. In this step, we will create a **Care Plan** with one or more **Care Team member(s)** so that the whole care team can collaborate and provide better healthcare for the patient.

   a. Whie on the Patient record, **navigate** to the **Care Plan** tab and select **Add Care Plan**



   b. **Create** a new **Care Plan** record by filling out the following information**:**

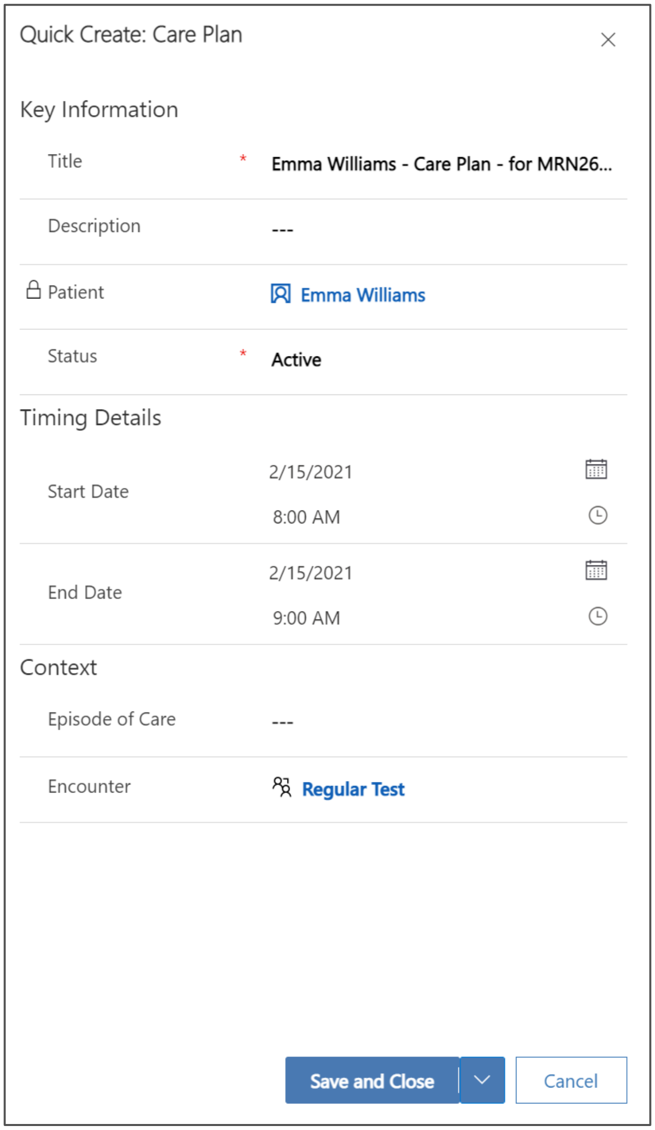
      i. **Title and Description**: Emma Williams - Care Plan - for MRN2631-210020

      ii. **Status**: Active

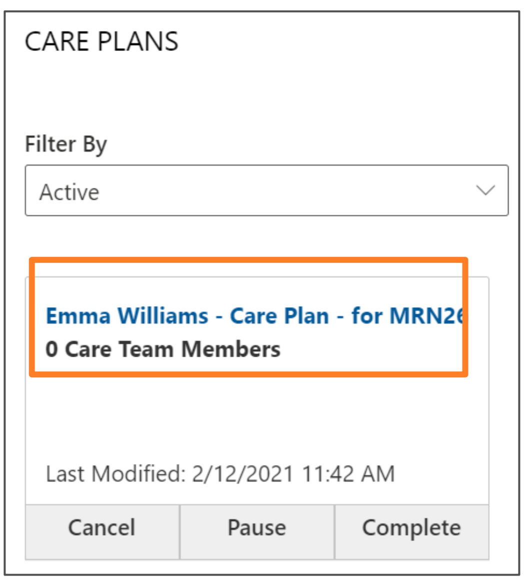
      iii. **Start and End Dates**: Pick any

      iv. **Encounter**: Choose the Encounter that we created in the previous task.

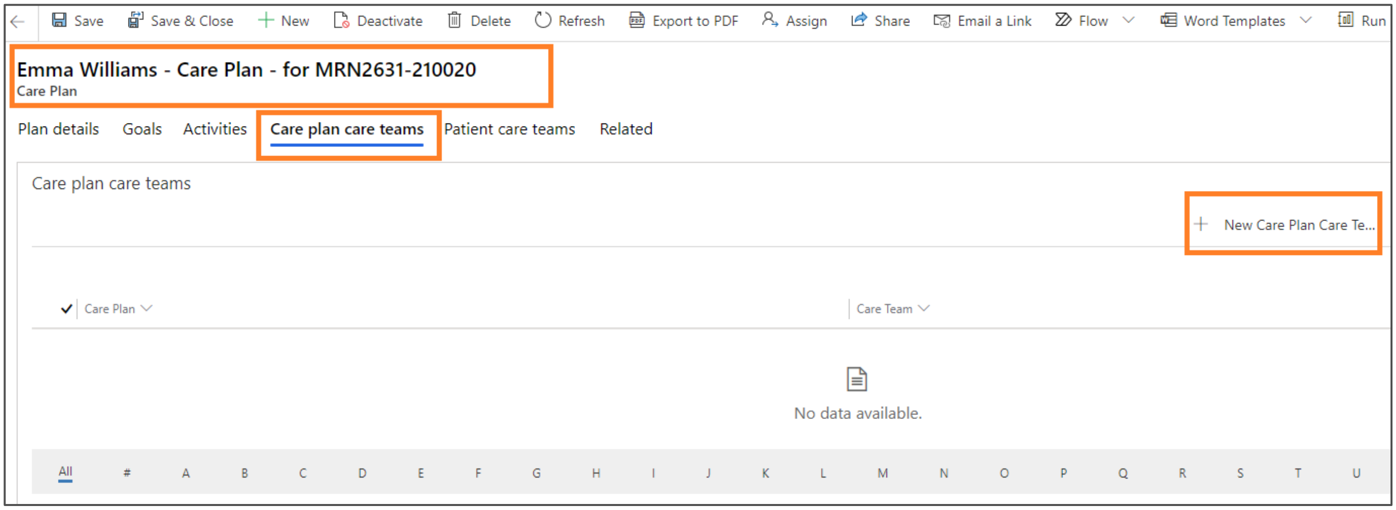
   c. Click **Save and Close**.



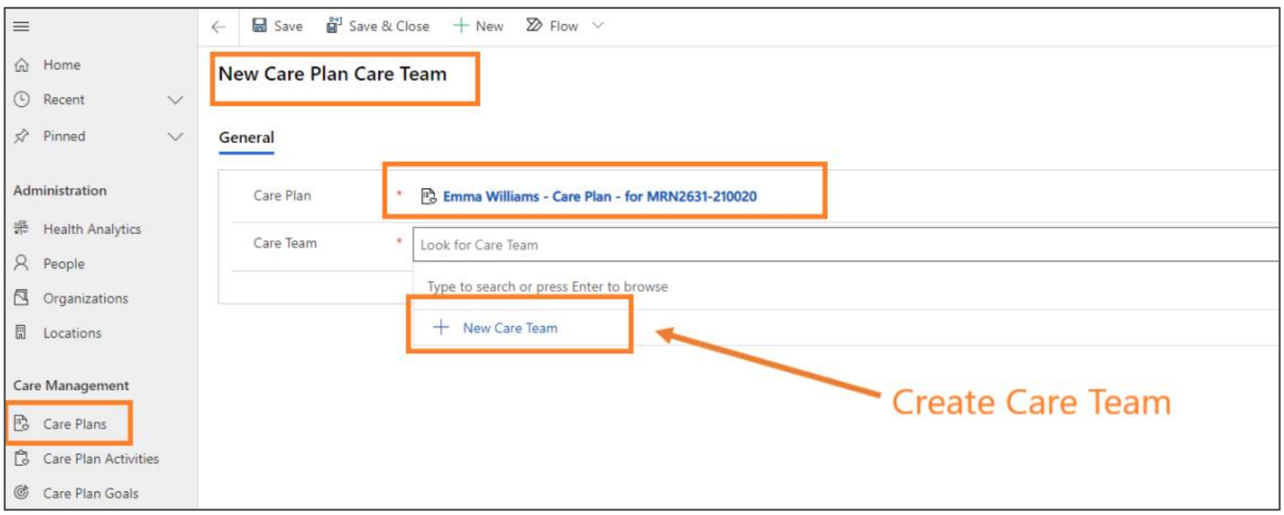
d. After saving the Care Plan, select it to open the record.



e. Once the Care Plan record is open, select the **Care plan care teams** tab and click **New Care Plan Care Team.**



f. To create the **Care Plan Care Team**, we need to create a **Care Team.** On the Care Team lookup field, click + New Care Team. A Quick Create form will pop out from the right side of the screen.



g. **Create** a new **Care Team** record by filling out the following information:

i. **Name:** Emma Williams - Care Team - for MRN2631-210020

ii. **Care Team Number:** 1

iii. **Subject Type:** Patient

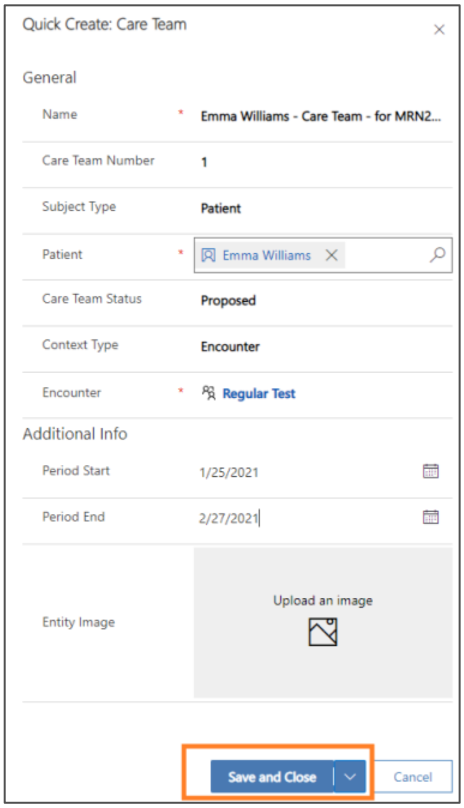
iv. **Patient:** Find and select "Emma Williams" created previously

v. **Care Team Status:** Proposed

vi. **Context Type:** Encounter

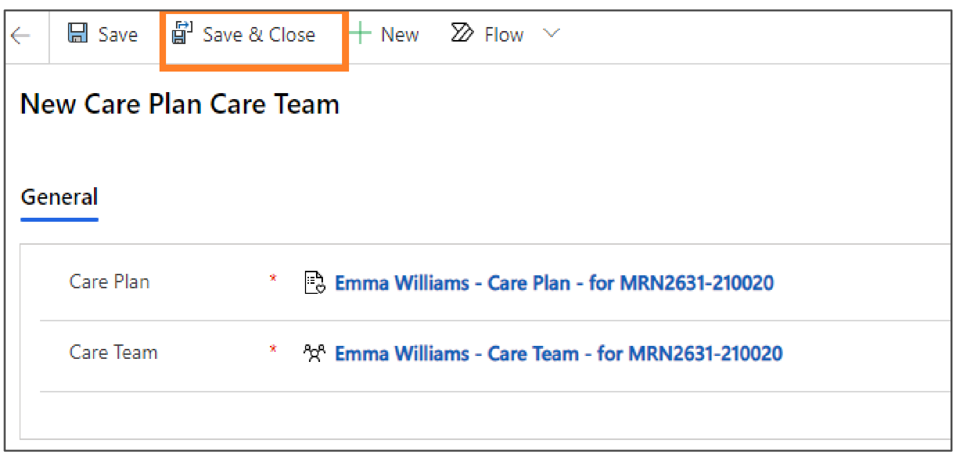
vii. **Encounter:** Regular Test (Create in the previous task)

viii. **Period Start and Period End:** Pick Any Date



i. Click **Save and Close** to save the care team.

j. Click **Save and Close** to save the **Care plan care team** and return to the Care Plan record.

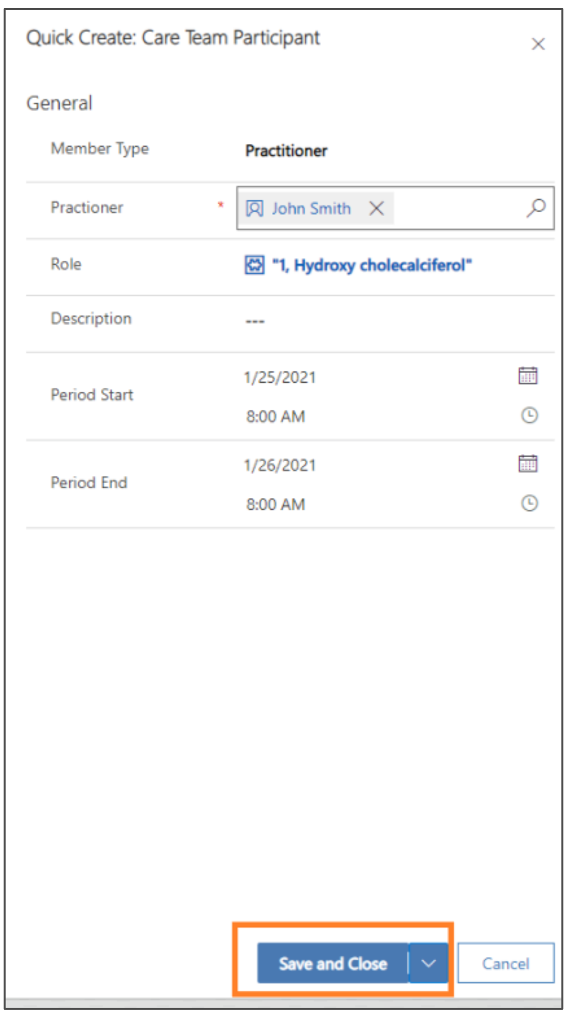


4. After you create **Care plan care team**, you should be able to add new **Care Team Members** by selecting the **Patient care teams** tab and clicking **+Add New Care Team Member**

5. **Create** a new **Care Team Participant** record by filling out the following information:

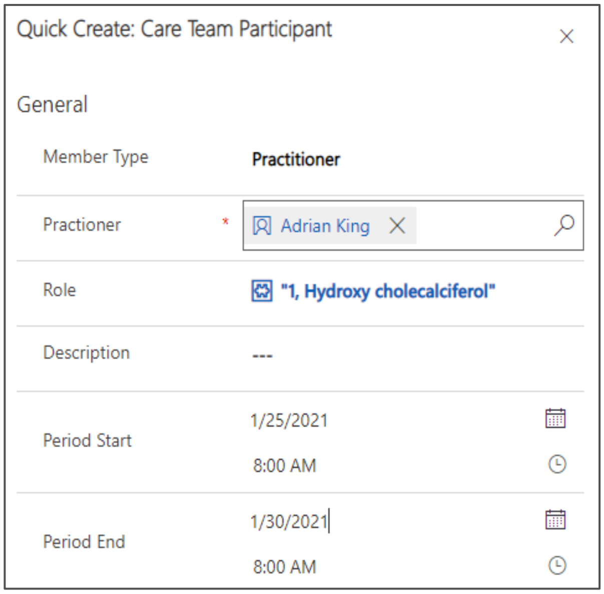
   i. **Member Type**: Practitioner
   ii. **Practitioner**: John Smith
   iii. **Period Start and Period End**: Pick any date.

6. Click **Save and Close**.



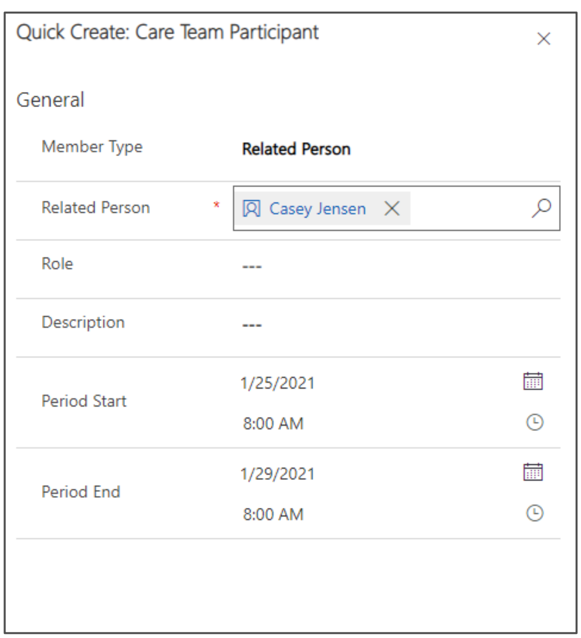
7. Repeat the steps above and **add** another **Practitioner** (**Adrian King**), as a **Care Team Participant**. Enter the following information:
   i. **Member Type**: Practitioner
   ii. **Practitioner**: Adrian King
   iii. **Period Start and Period End**: Pick any date.

8. Click **Save and Close**

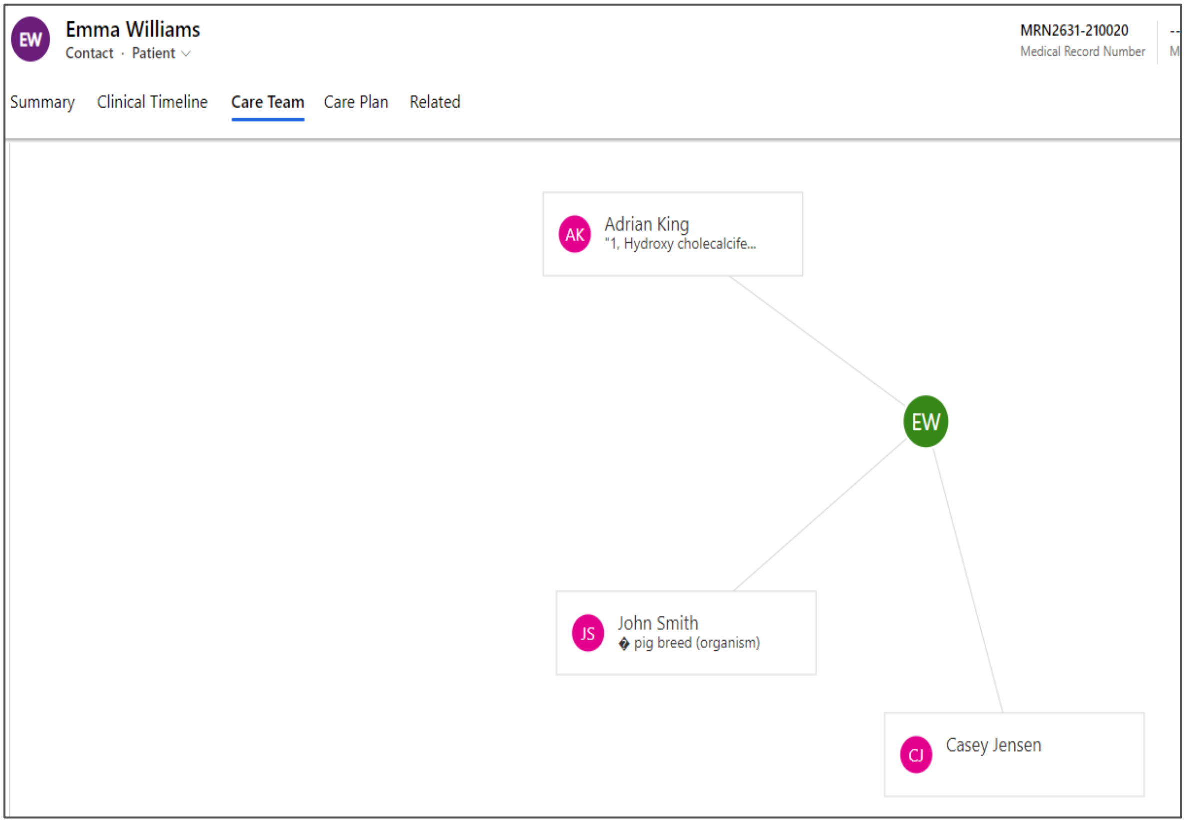


9. **Create** one more **Care Team Participant** record by filling out the following information:
   i. **Member Type**: Related Person
   ii. **Related Person**: Casey Jensen
   iii. **Period Start and Period End**: Pick any date.

10. Click **Save and Close**



11. You will now see the complete Care Team that has been mapped to Emma Williams.

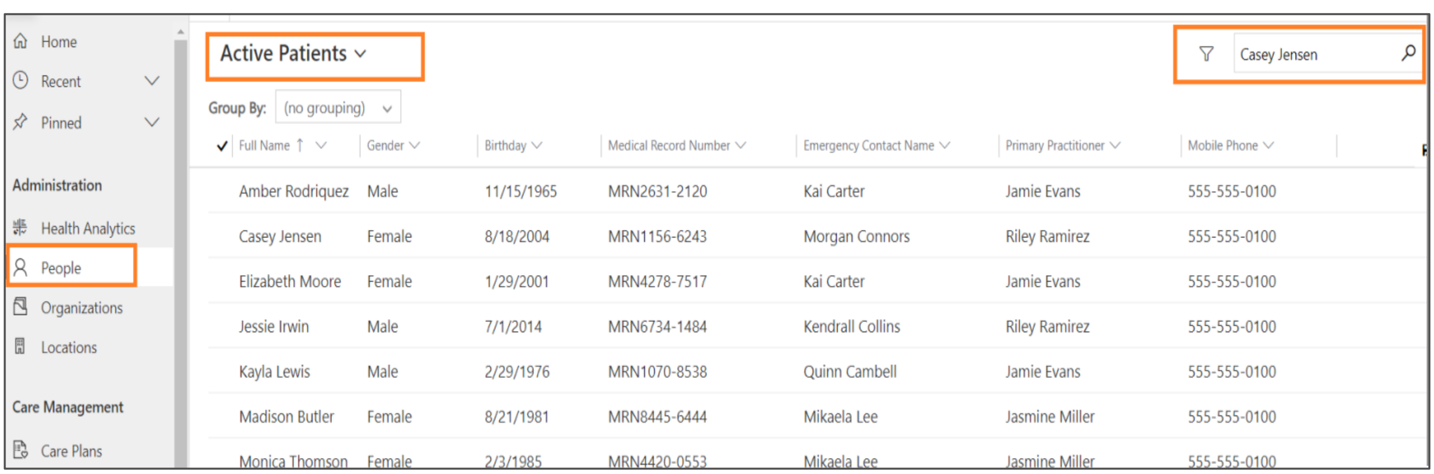


Congratulations! In this Task, you have learned how to create a new **Patient** and **Patient Encounter** record in the **Care Management** app, then assigned it a **Care Plan** and a **Care Team** based on the patient's details.

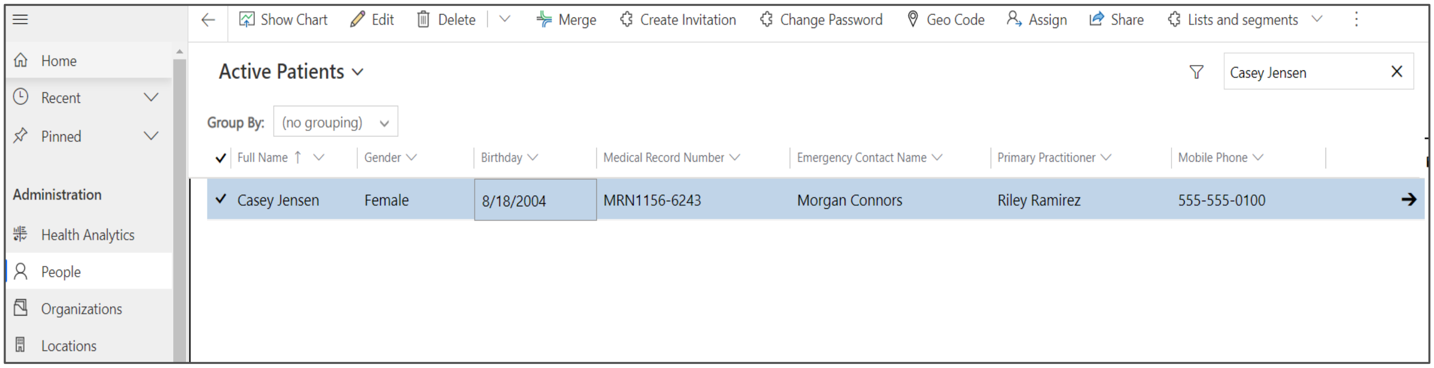
Task 4: View Patient Clinical Data, Care Plan and Timeline

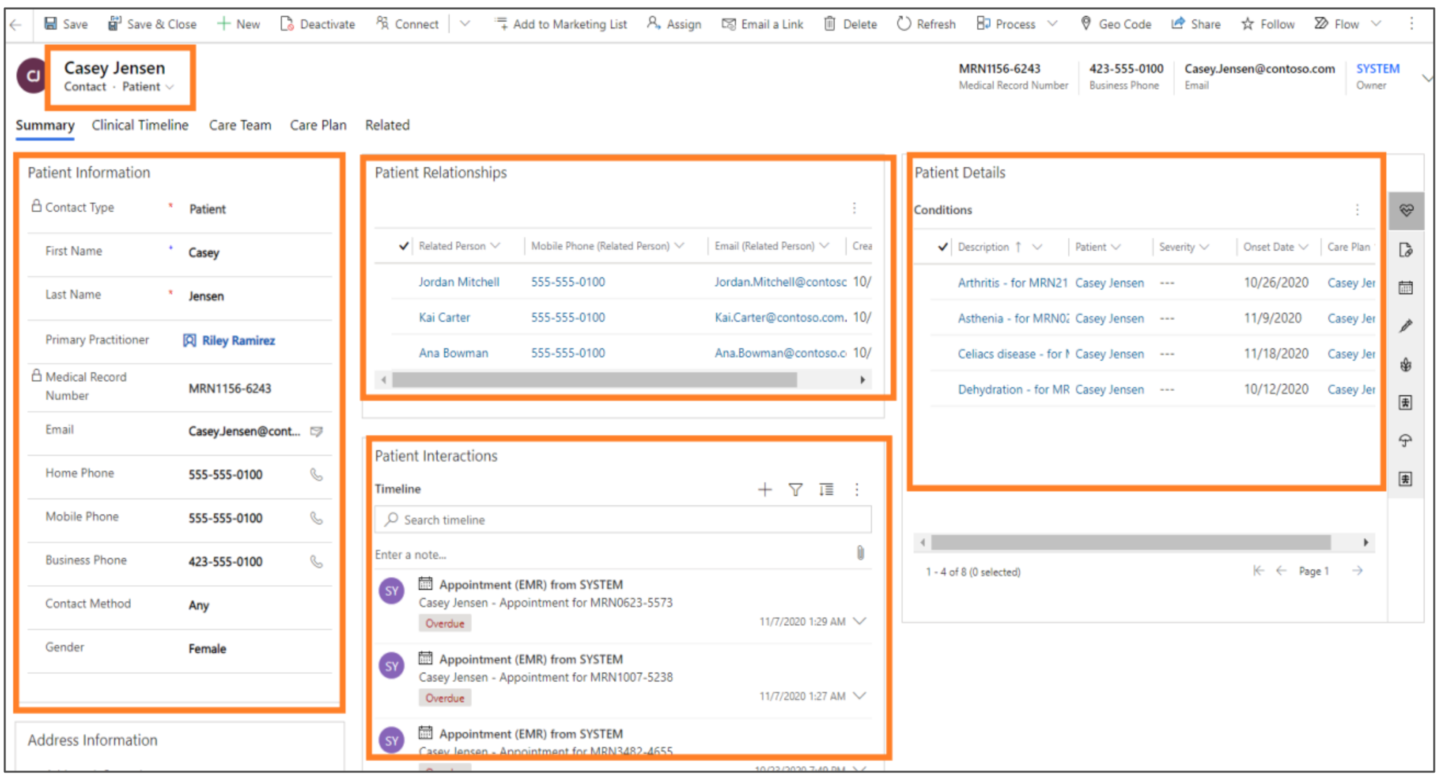
In this task, we will look at a patient's medical history, activities, clinical timeline, and procedure details in the Care Management app to see a full 360 view of the patient.

1. Click **People** on the sitemap, select the **Active Patients** view, and **search** for **Casey Jensen.**

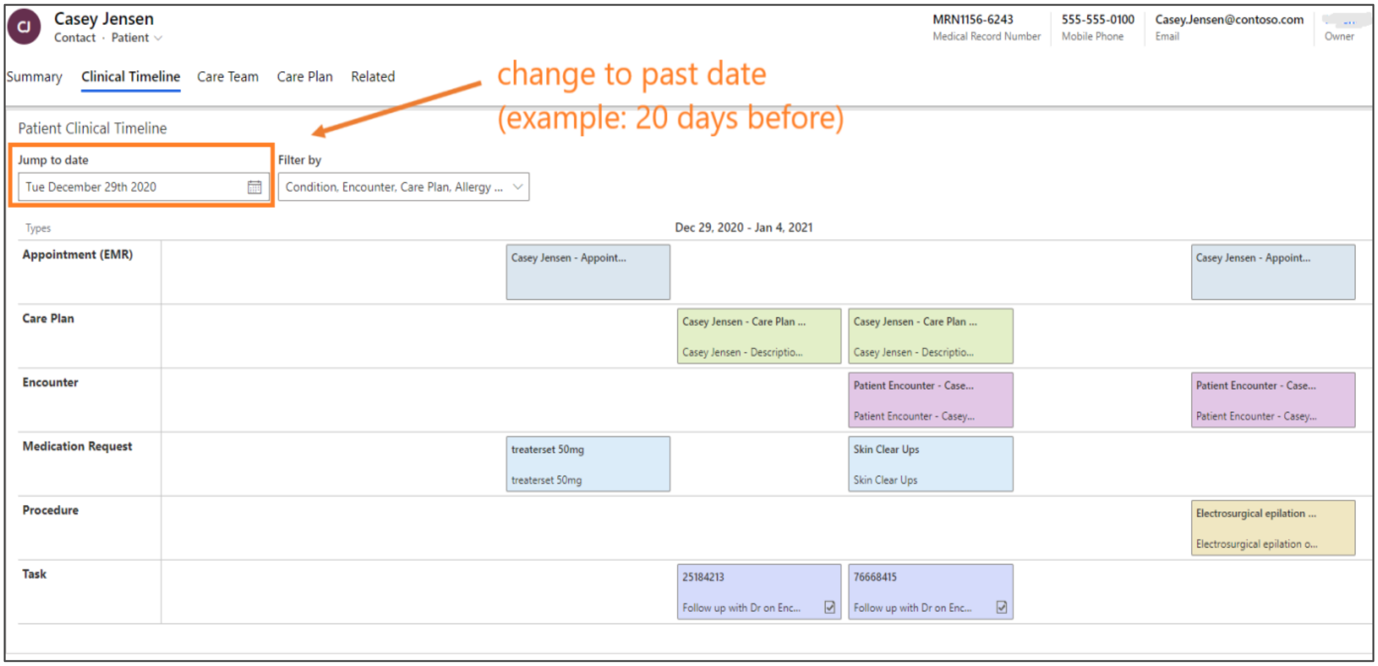


2. **Open** the "Casey Jensen" record to view the **Patient Relationships**, **Patient Details** and **Patient Interactions.**



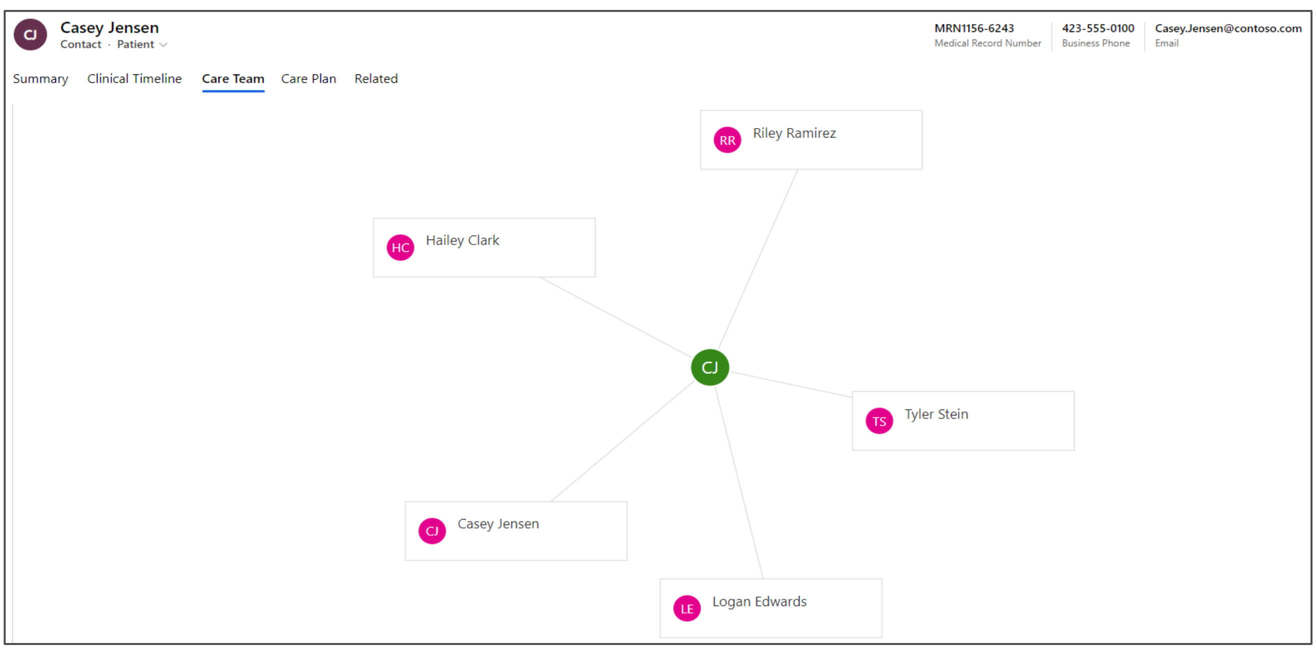


3. Click the **Clinical Timeline** tab to show data with regards to Care Plan, Medication Request, procedures, Task, and Conditions etc. Choose a date 20 days in the past to see data similar to the view below.

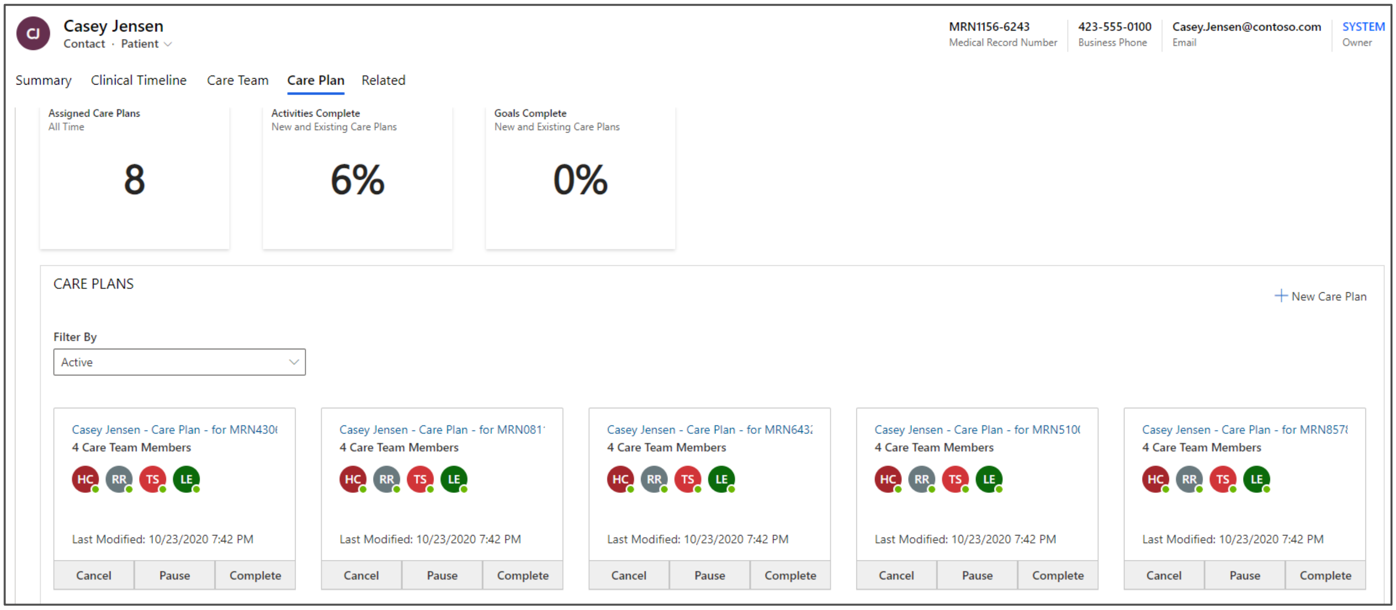


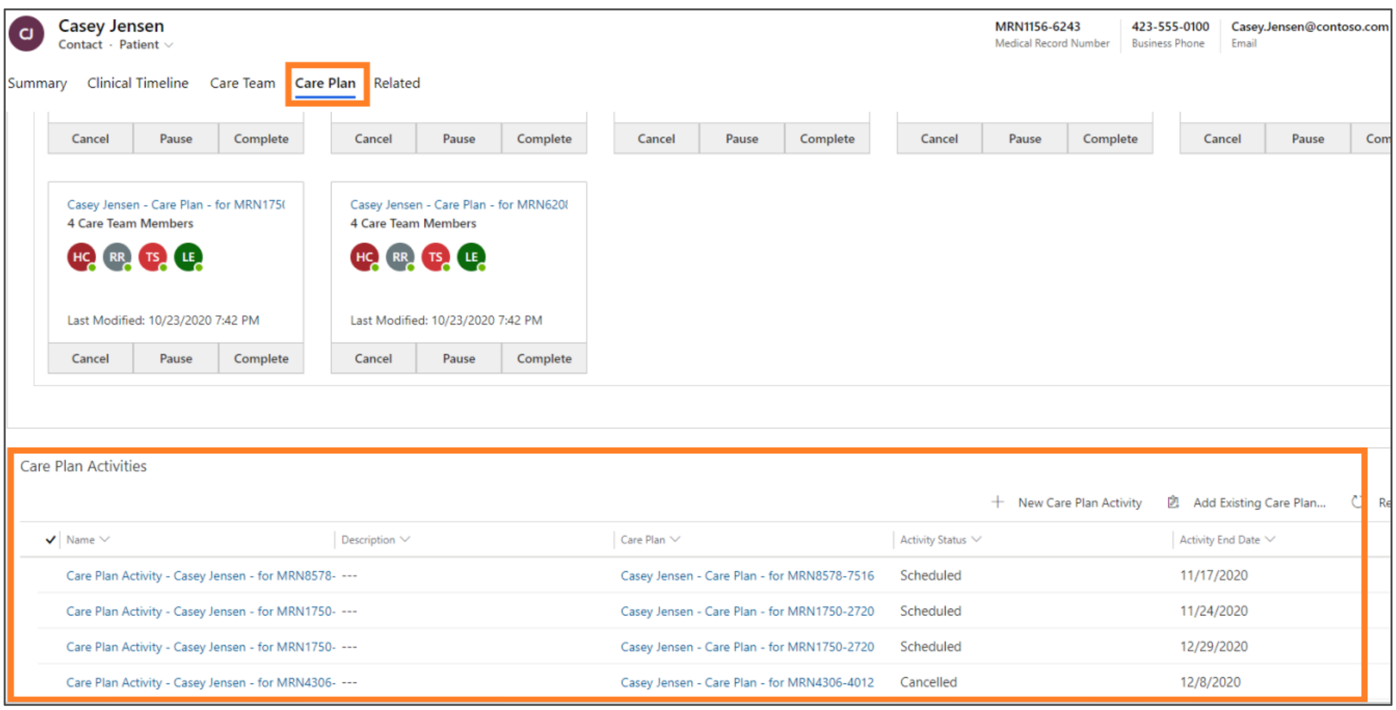
Note: Data may change based on the frequent data load, if you are not able to see the above timeline view, then you may need jump to an older date.

4. Select the **Care Team** tab to see all the team members participants of Patient "Casey Jensen" (patient abbreviation "**CJ**" shown in the center)



5. Select the Care Plan tab to view all the associated **Care Plan** details with **status** for patient "**Casey Jensen**". The below "Care Plan" stats are displaying the Number of Assigned Care Plans, Activities Complete, Goals Complete etc.





Congratulations! You have learned how to navigate, view, and create Patient 360 data in the Care Management application.

Exercise 2: Extend Care Management App

In this exercise, we will see how a **System Customizer** can customize and extend the **Care Management** App.

Note: User must have a System Customizer or System Administrator security role to complete this exercise. If you are in an official training, this has already been applied to your user.

You will do the following tasks in this exercise:

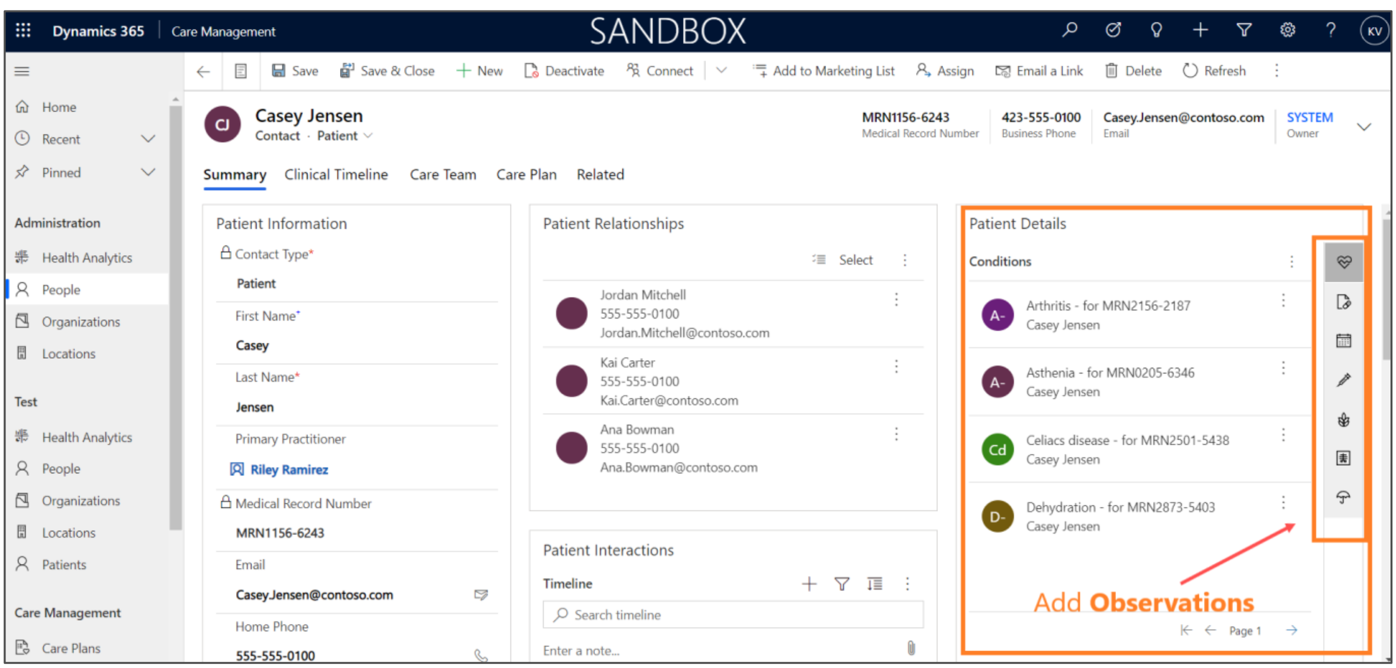
1. Add **Observation** data on the Patient form in patient details section. This allows the Care coordinator to see essential clinical data in one place, including conditions, procedures, allergy intolerance and observations for the patient.

2. Add the **Claims** table to the Sitemap, which will allow the Care coordinator to quickly check recent claims information for patients.

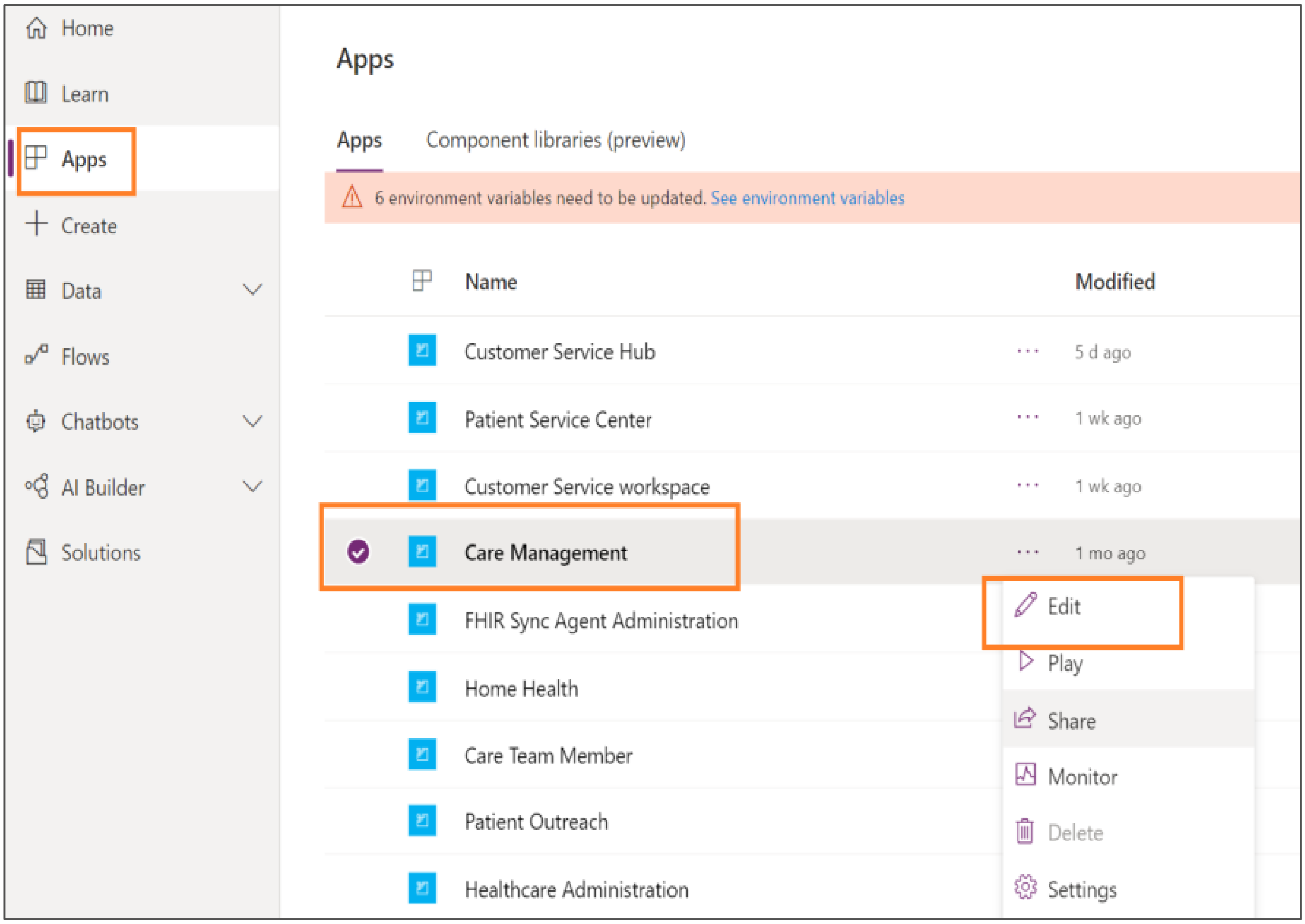
3. Customize **Care Plan** with Filter and Group by Option with Patient: with this customization, Care Coordinator will be able to filter and pivot **Care Plan** data by Patient.

Task 1: Add Patient Observations data on the Patient form

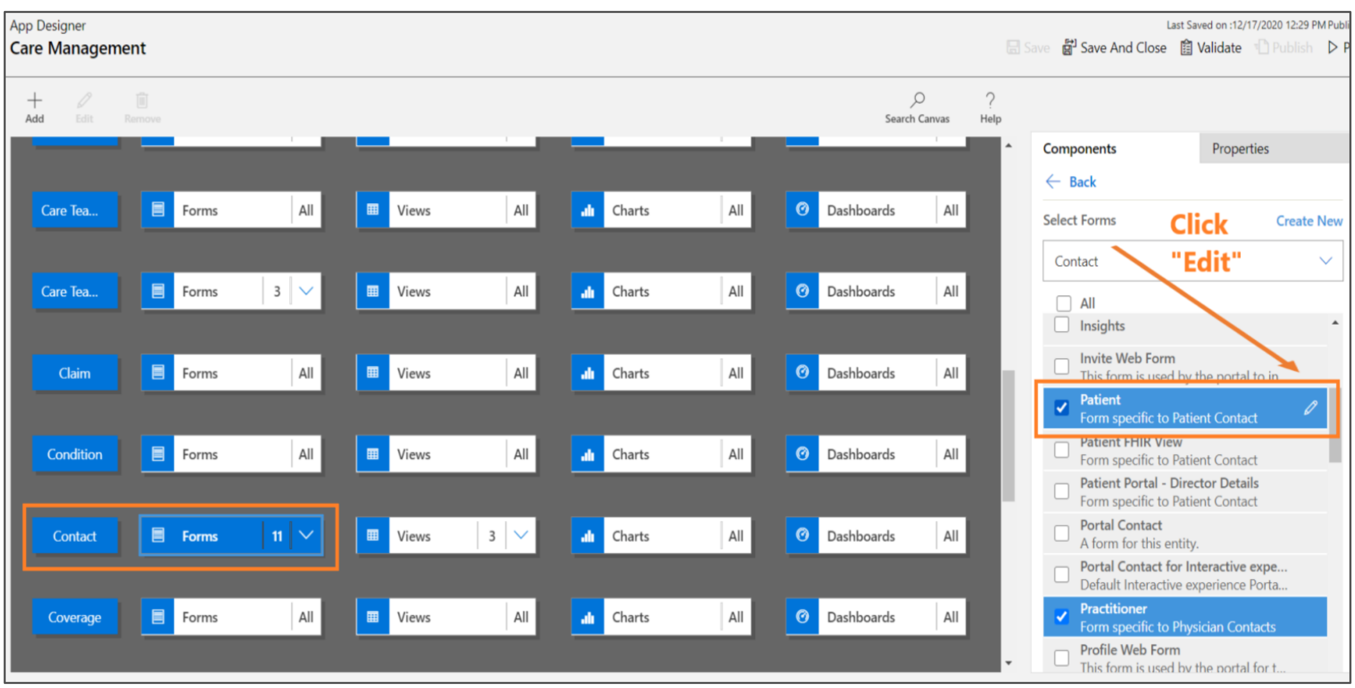
In this task we will add related **Observations** data for the Patient to the form to gain a deeper understanding of the selected patient.



1. Edit the **Care Management App**
    a. Navigate to Power Apps.
    b. Select **Apps** and highlight the **Care Management** App.
    c. Go to more Commands by clicking **...** and then click **Edit.**



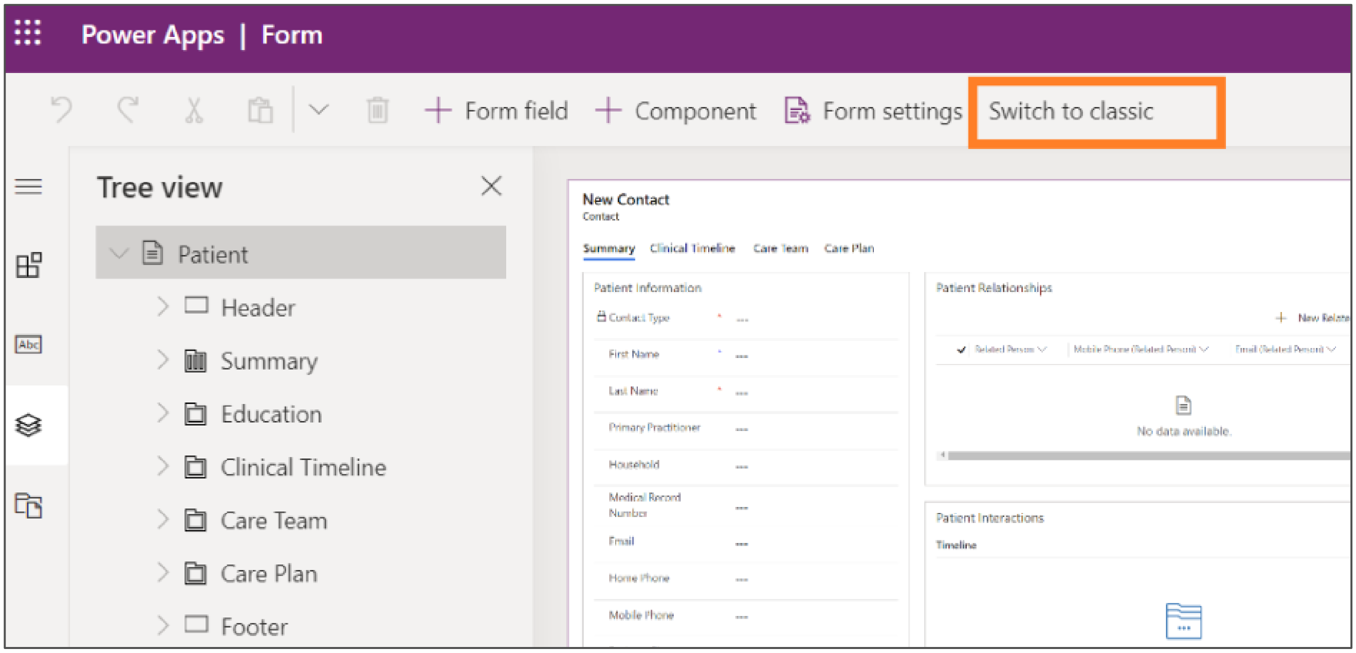
2. Edit **Patient** form by scrolling down until you find **Contact** Table
    a. Click **Forms** (this will list all the Forms under Contact Table).
    b. Select **Patient** and click the **Edit Pen Icon** (refer to picture below).



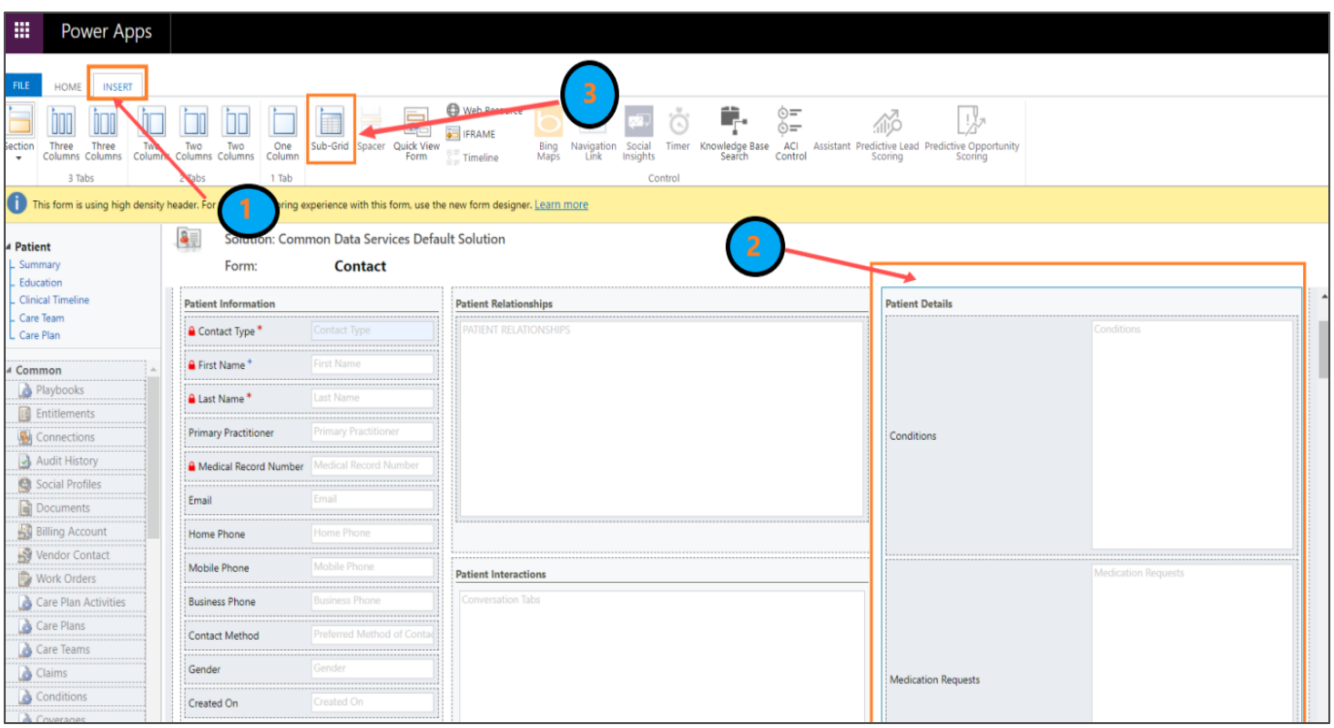
3. The Power Apps model-driven **Form Designer** should have opened.

   Note: Currently, Power Apps >> Form Designer does not support this PCF control customization, we will use the Classic Editor to Customize this PCF Control. Later we will change back to use the Power Apps Form Designer for this customization when there is a support.

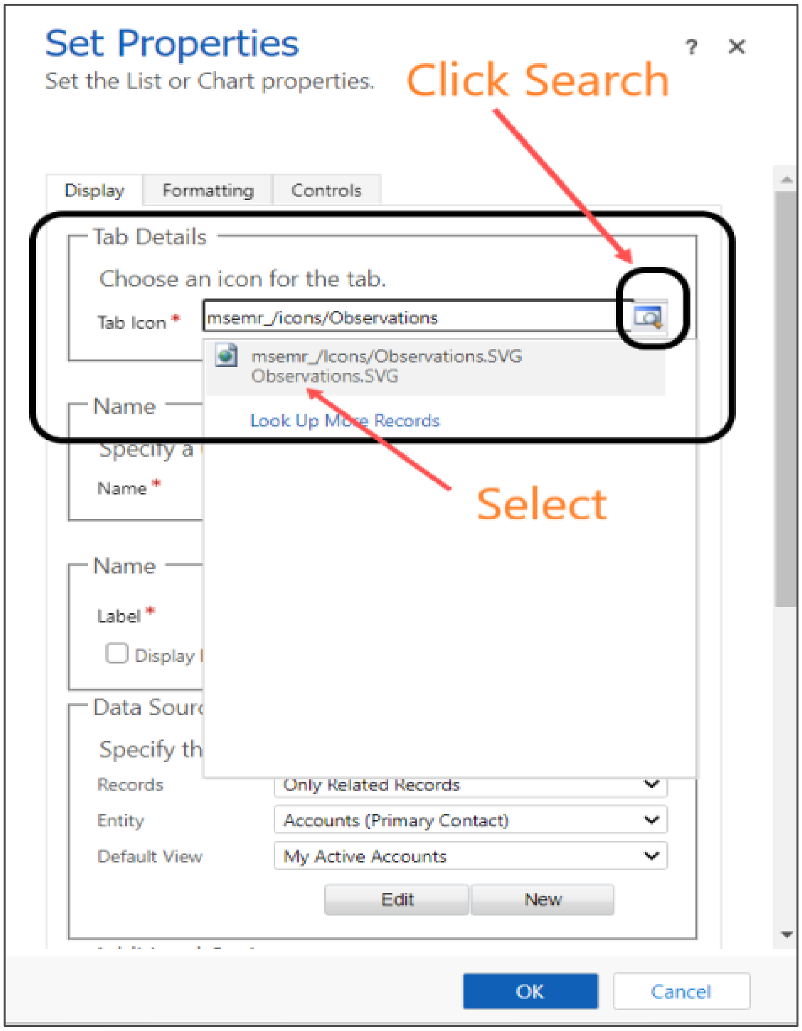
4. Click **"Switch to Classic"** button (refer to the picture below).



5. Customize the Patient Form to add **Observations** control under **Patient Details** Panel
   a. Select the **Patient Details** Tab Panel
   b. Select the **Insert** tab, then select **Sub-Grid.**



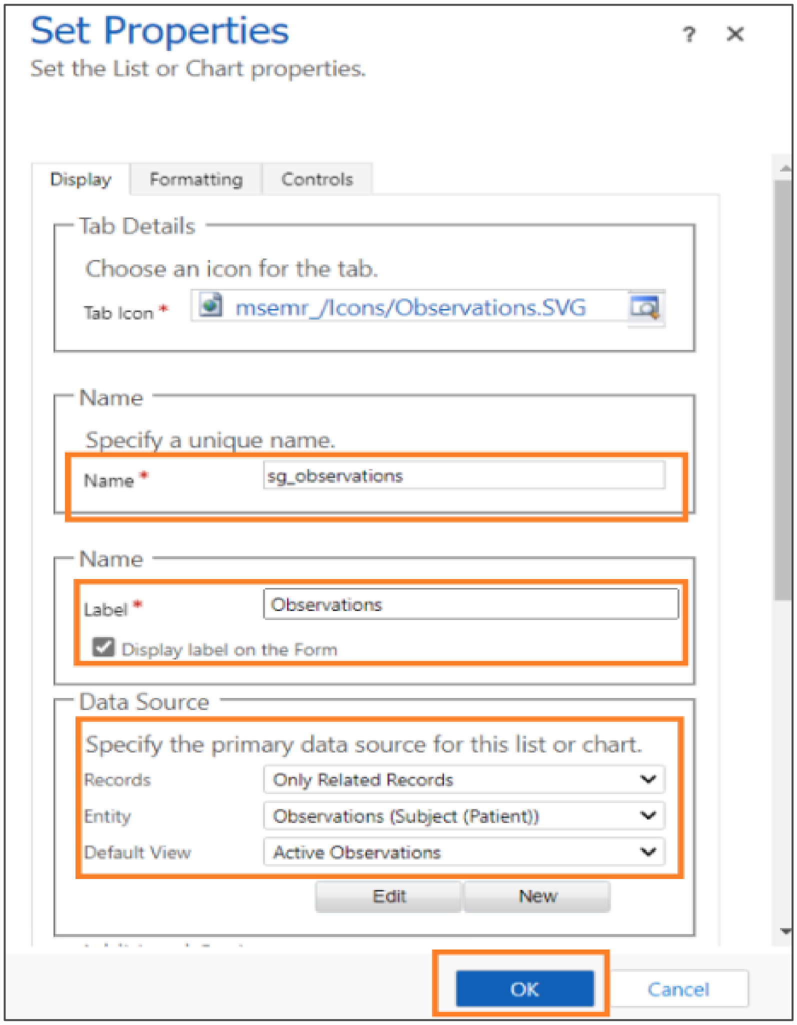
6. This will open the **Set Properties** window. Fill out the below values:
   a. Tab Details Section:
      i. **Tab Icon** – msemr_/icons/Observations
      ii. **Click "Search"** and select the record.



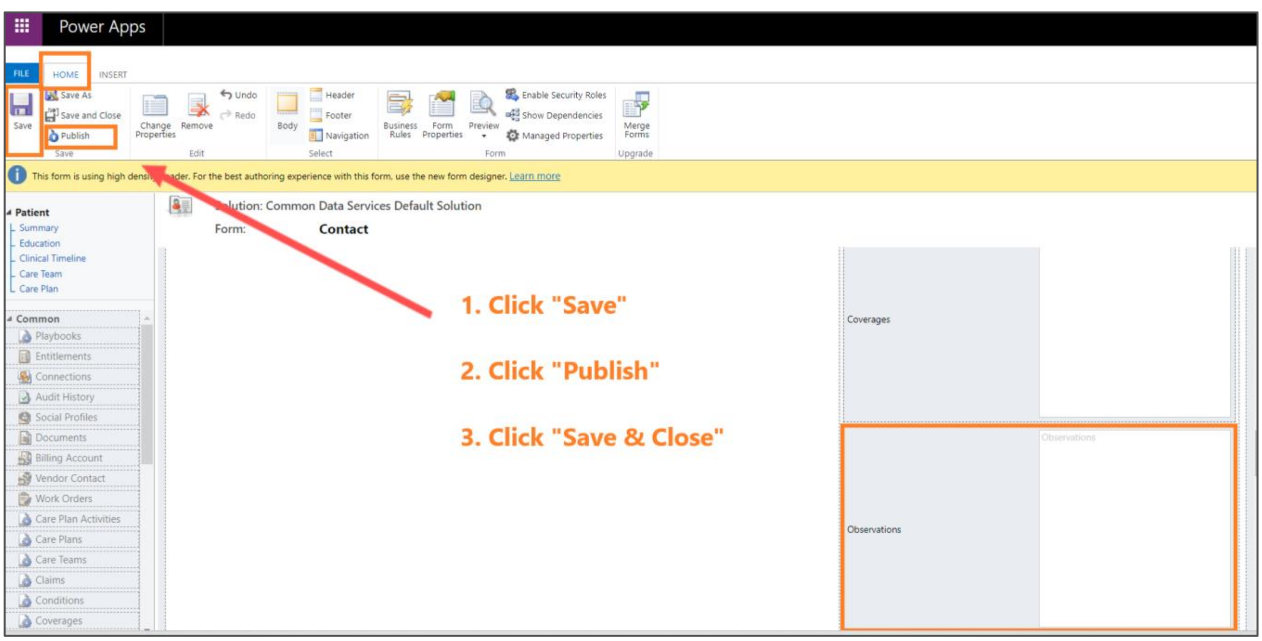
7. Name Section:
   a. **Name** – sg_observations
   b. **Label** – Observations (Select **checkbox** "**Dislpay Label on the Form**")

8. Data Source section:
   a. **Records** - Only Related Records
   b. **Entity** - Observations (Subject (Patient)
   c. **Dafault View** – Active Observations

9. After all details are entered, click **OK**

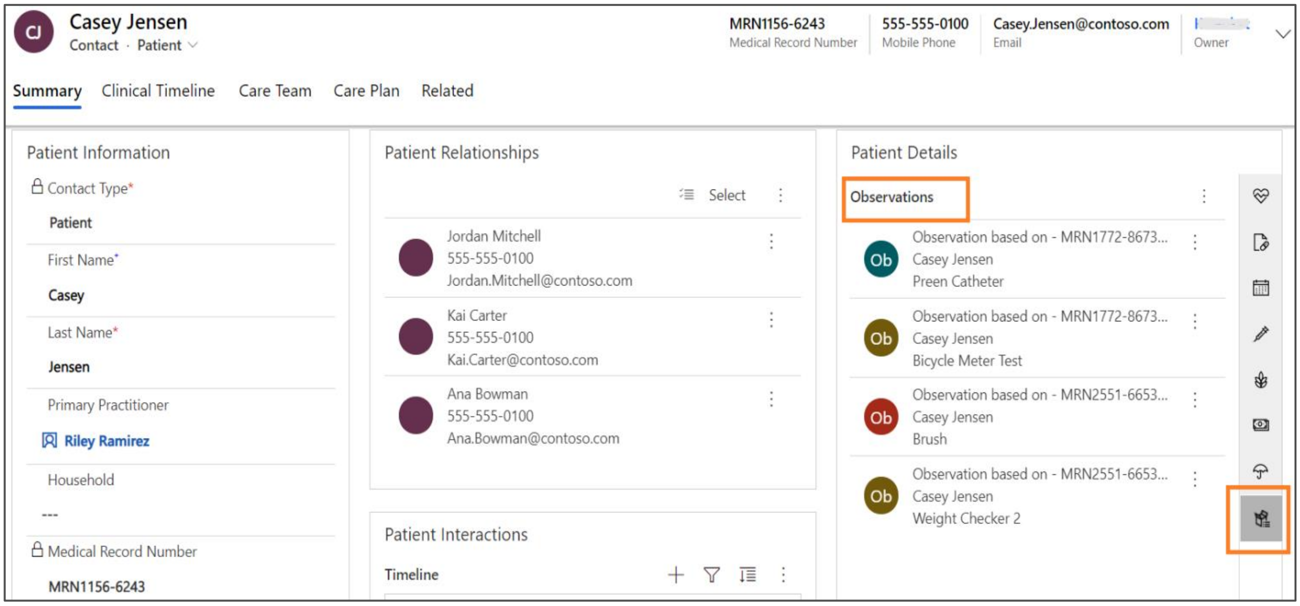


4. You should now see the **Observations** sub-grid added into the Patient Form (refer to the picture below). Select the **Home tab** and click **Save** and then click **Publish** to publish the customization changes.



10. Verify the **Observations** data was added to the **Patient** Form:

a. Open the **Care Management app**
b. Select **People** on the sitemap and select a **Patient.**
c. Cross check that **Observations** was added to the **Patient Details.**
d. Click **Observations Icon** to see the **Patients Observations** data



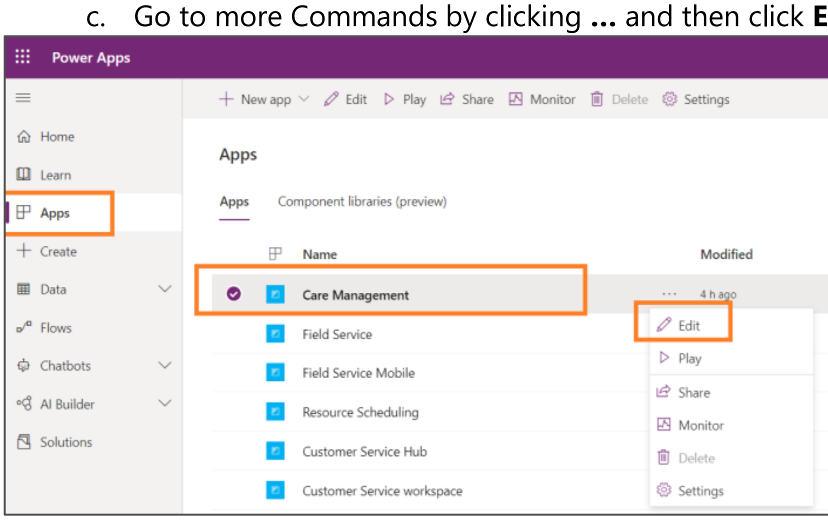
Congratulations! You have successfully added **Observation** data under the **Patient Details** section.

Task 2: Add Claims data to the Sitemap in Care Management app

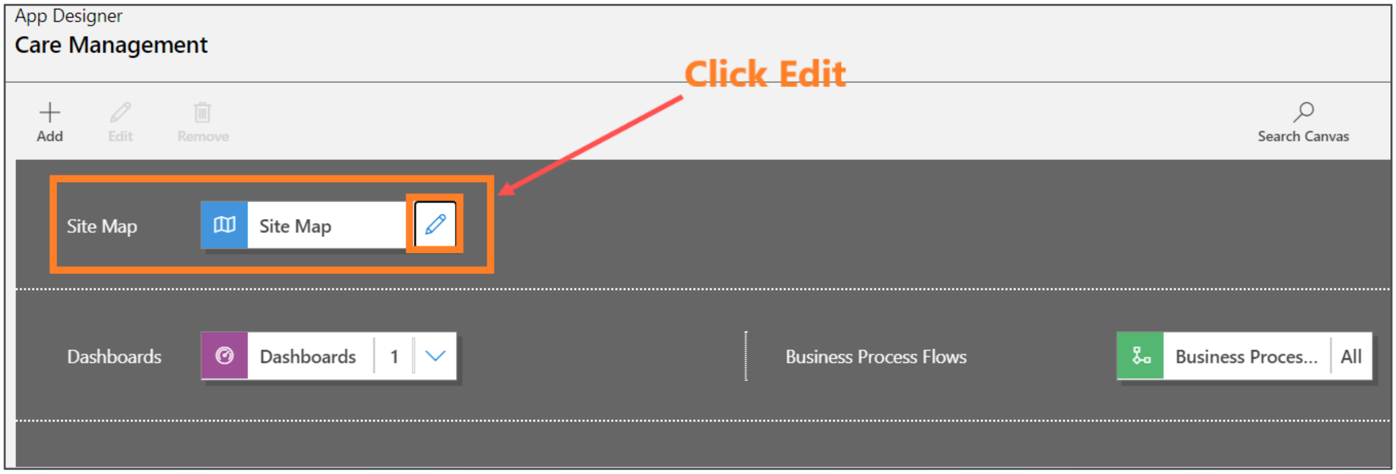
The **Care Coordinator** wants to see the Patient 360 data for each patient, Care Coordinator would like to see all the Patient **Claims** data.

In this task, you will learn how to add a new table within the sitemap of the Care Management application.

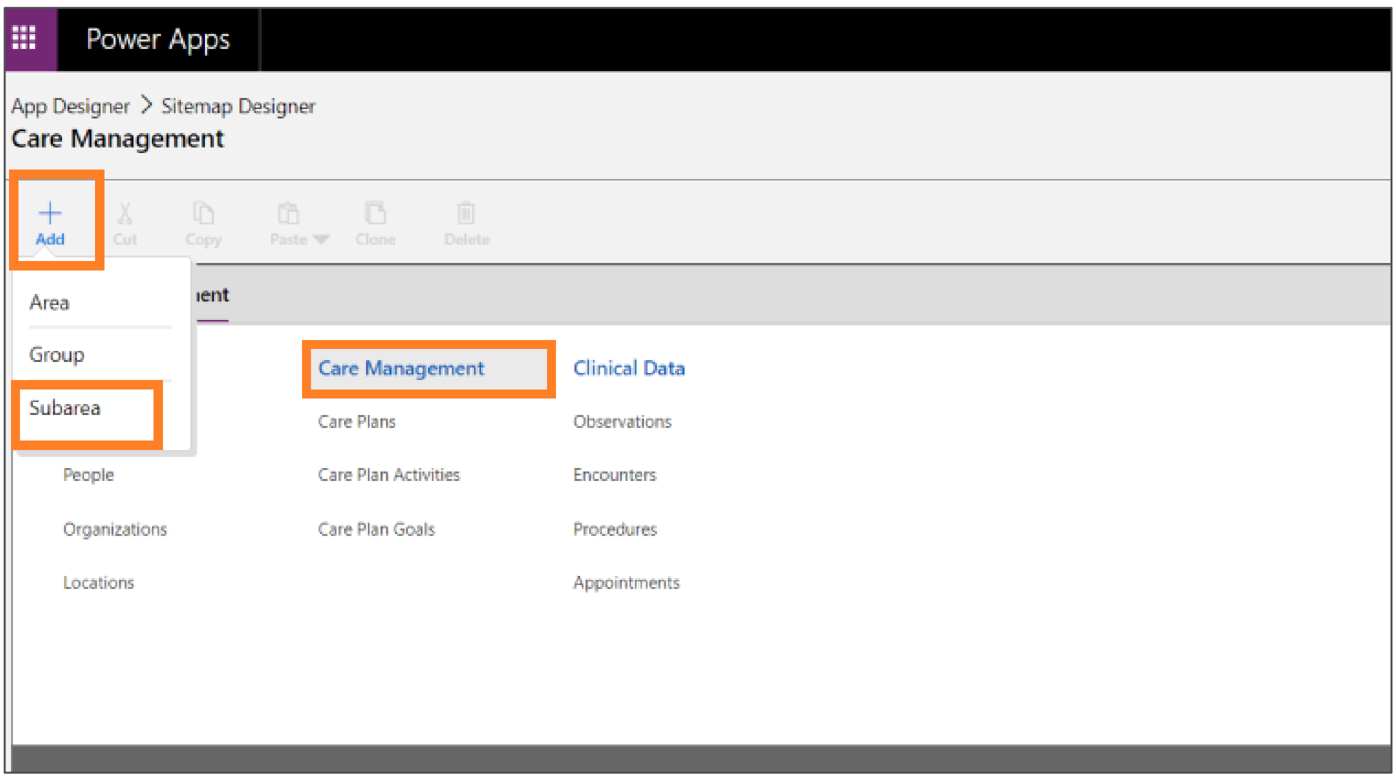
1. Edit **Care Management App:**
   a. Navigate to Power Apps.
   b. Select **Apps** and highlight the **Care Management** App.
   c. Go to more Commands by clicking **...** and then click **Edit.**



2. Click **Site Map** and then click the **Edit Pen Icon** (refer to picture below).



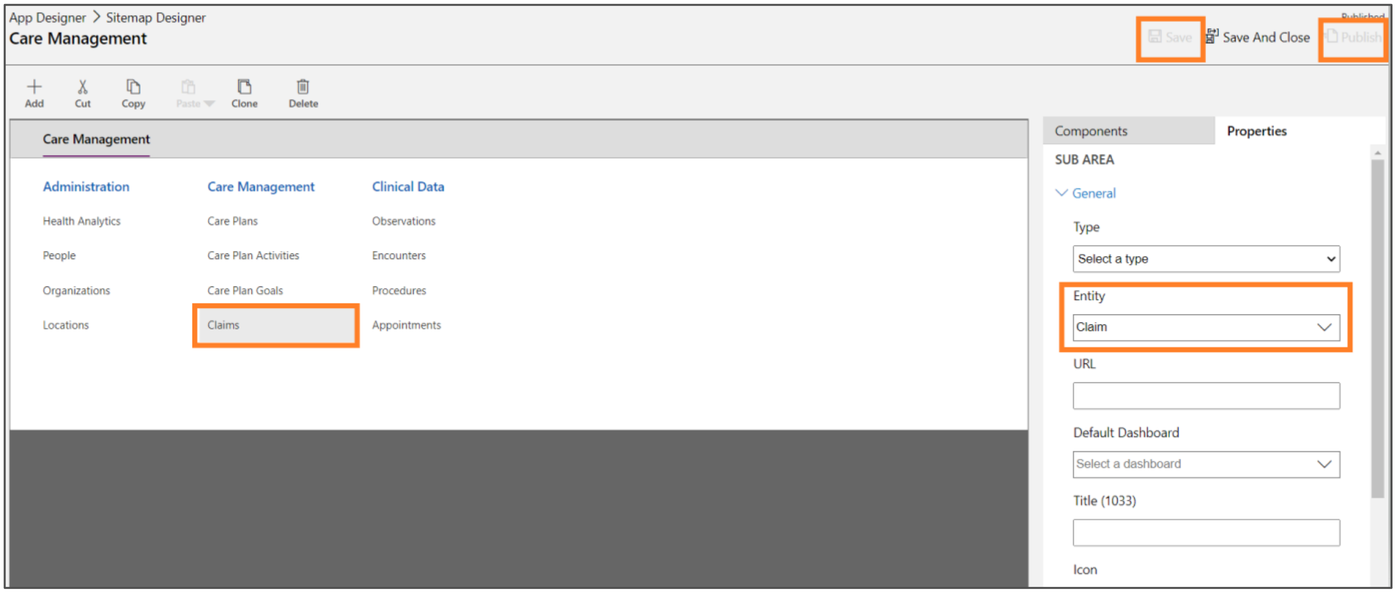
a. Ensure "**Care Management**" is selected, then click the **Add** button and then click **Subarea.**



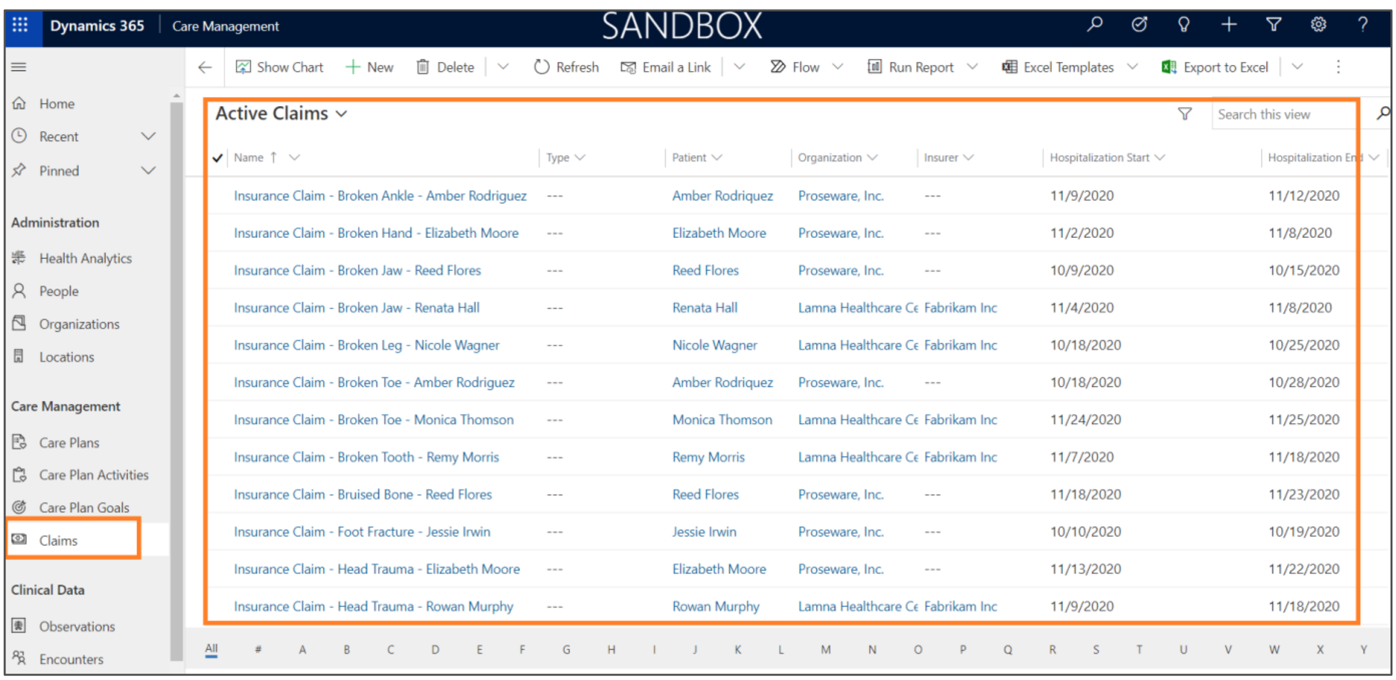
b. In the **Property window**, choose **Claim** from the Entity drop-down menu.

c. Click **Save,** then click **Publish.**

d. Click **Save & Close.**



3. Navigate back to the **Care Management app** to verify that **Claims** has been added under the **Care Management** section.



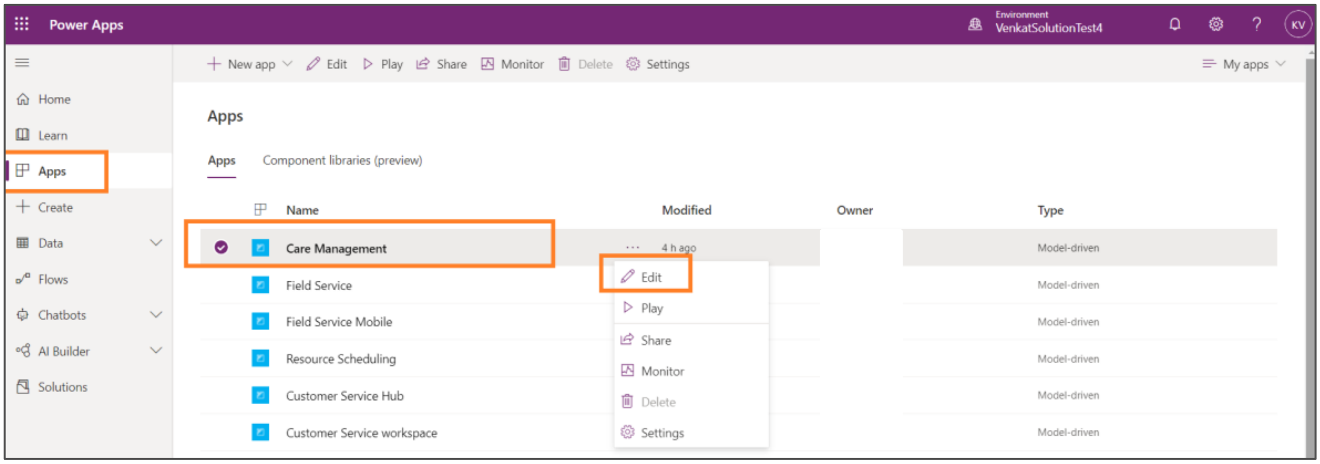
Congratulations! You have customized the Sitemap to add **Claims** to the Care Management section.

Task 3: Add an Editable Grid to Care Plans

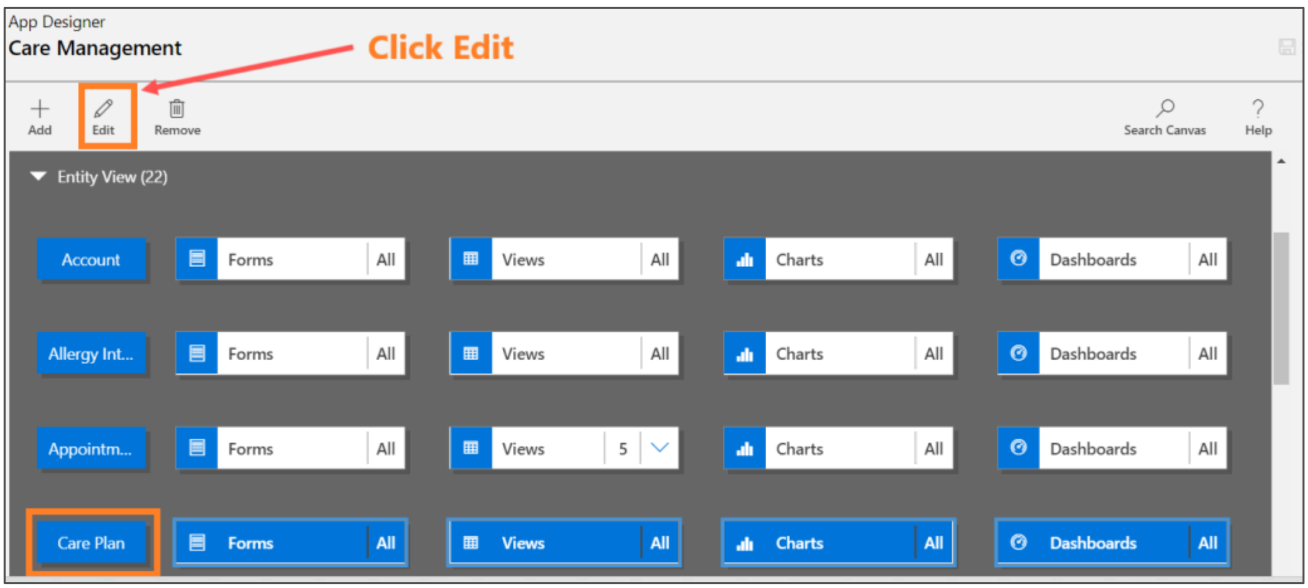
In this task, we will add an editable grid to the Care Plan table. With editable grids, users can do rich in-line editing directly from grids and subgrids whether they are using a web app, tablet, or phone.

1. Edit **Care Management App:**
    a. Navigate to [Power Apps](#).
    b. Select **Apps** and highlight the **Care Management** App.

c) Go to more Commands by clicking **...** and then click **Edit.**

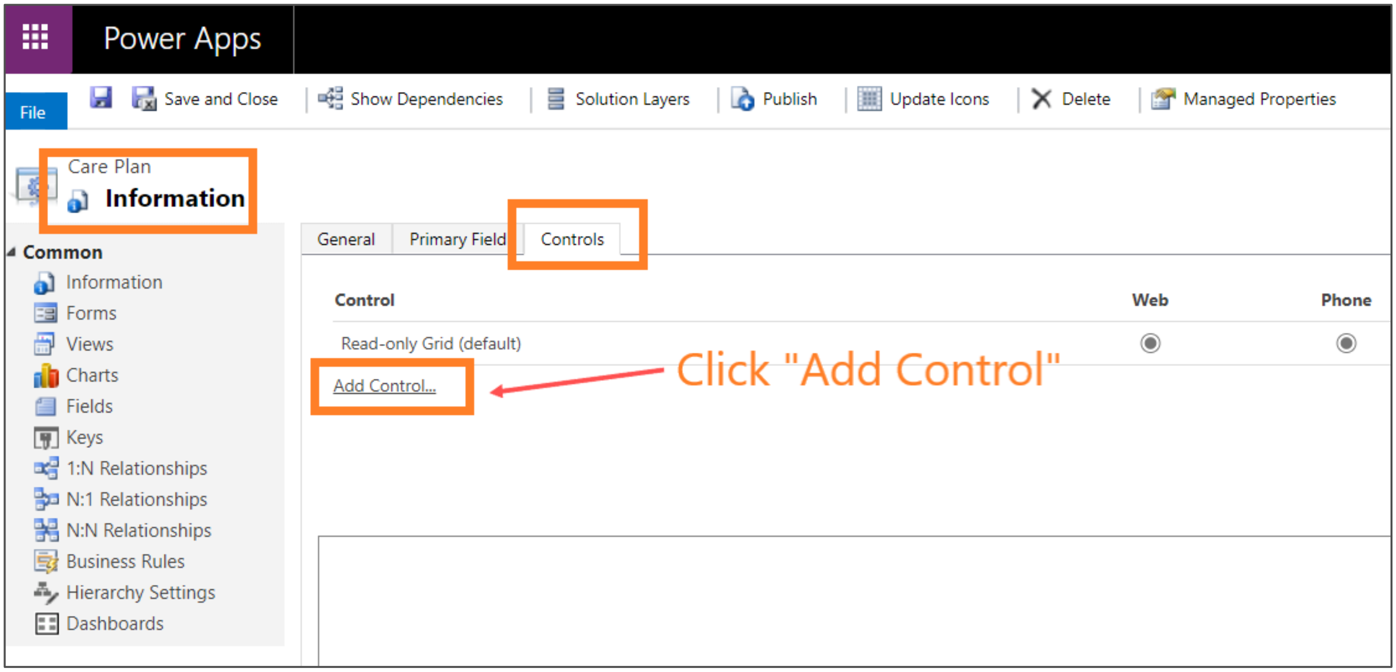


2. Select **Care Plan** and click the **Edit** button to navigate to the table customization page**.**



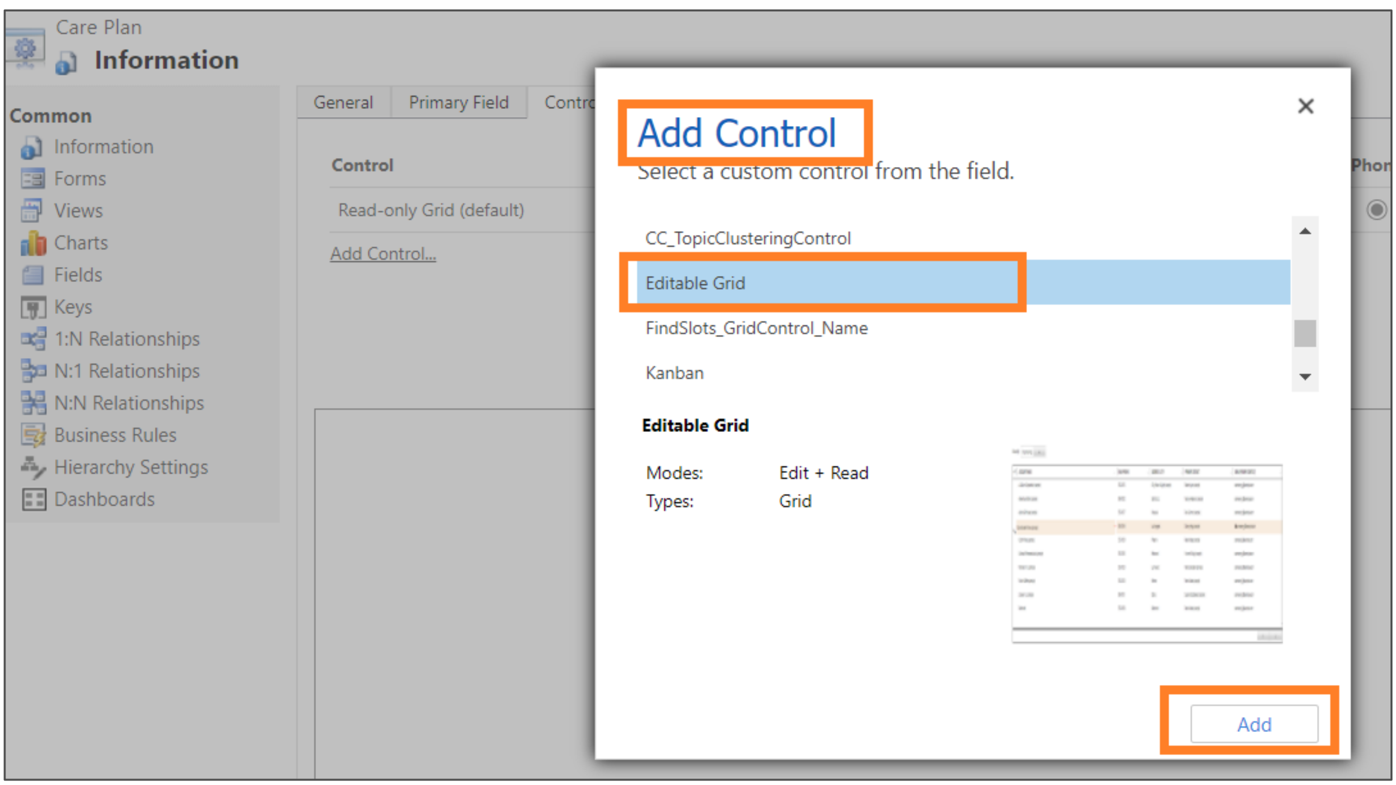
3. Select **Care Plan** and click **Edit** to navigate to additional **Care Plan** Table customizations

   a. Select the **Control tab** as marked in the below picture and click **Add Control.**

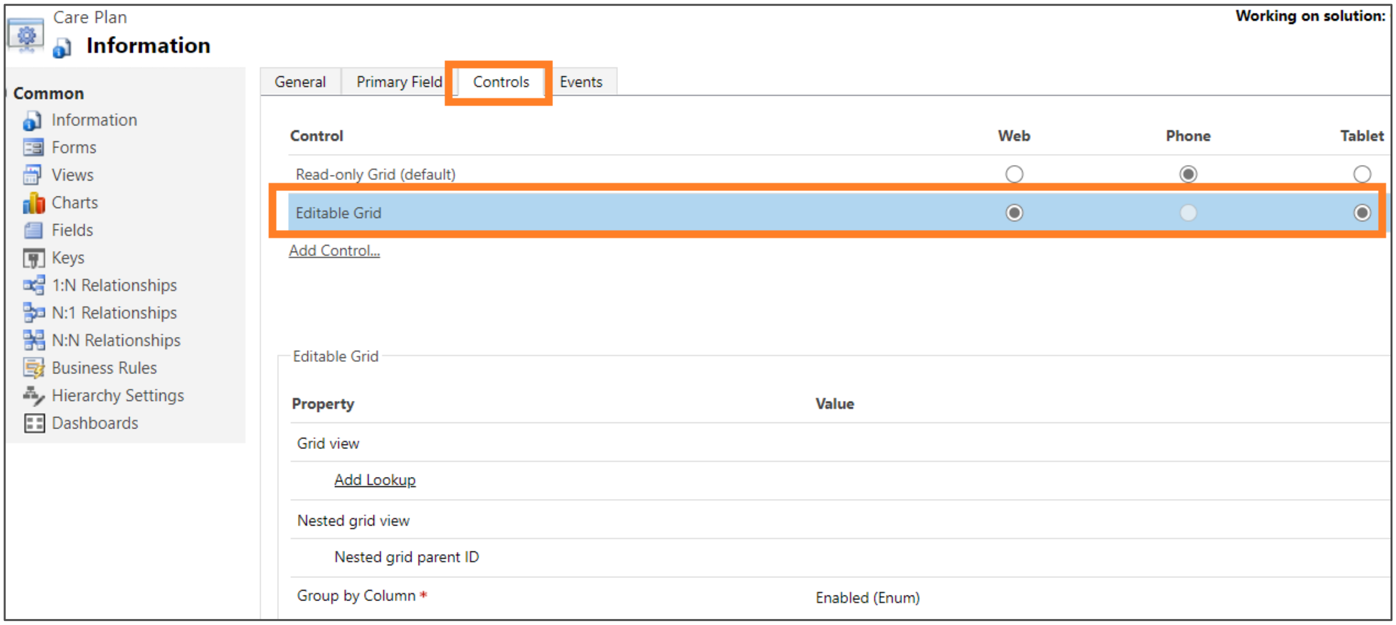


b. Select "**Editable Grid**" control from Customer Control section

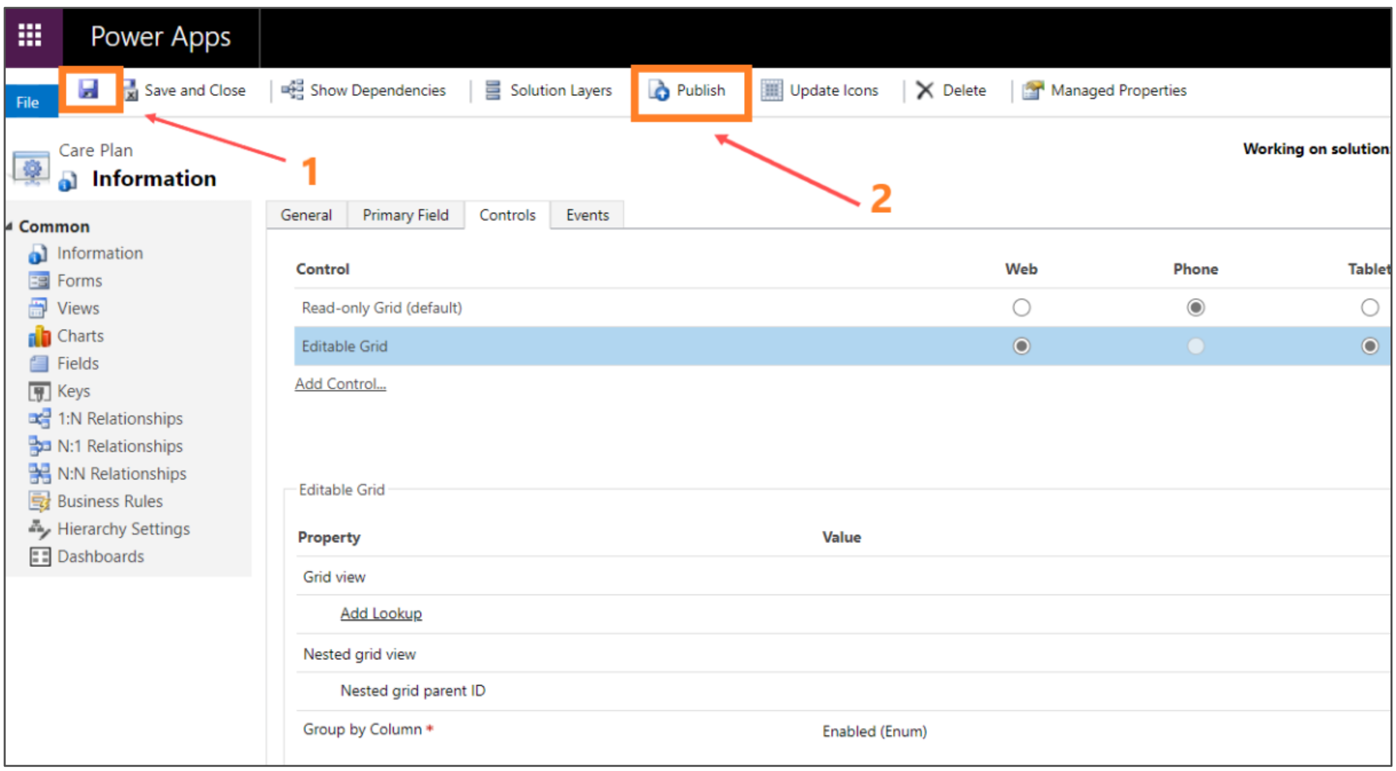
c. Click "**Add**" button to add the "**Editable Grid**" into the **Care Plan** Table



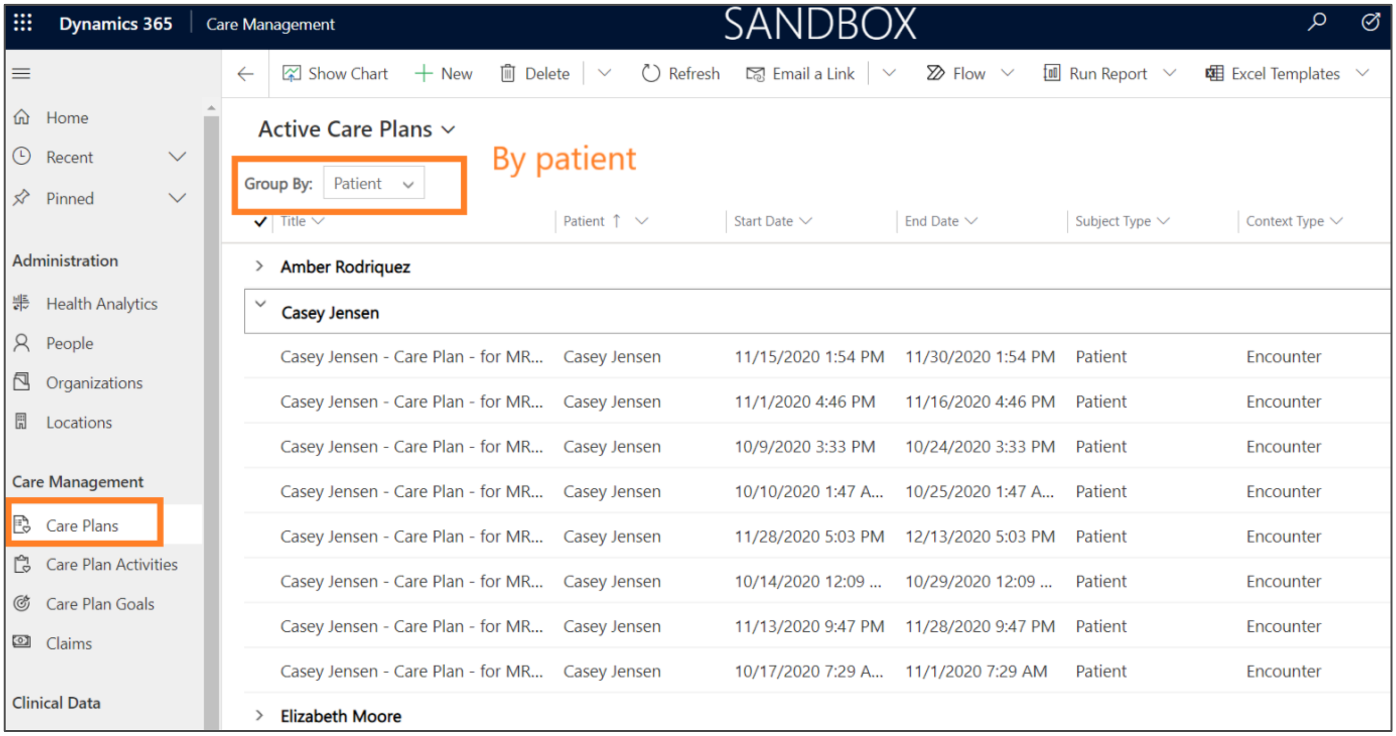
d. You have now added an **Editable Grid** with both **web** and **tablet** properties enabled.



e. Click the **Save** button to save the changes, then click **Publish** to publish the changes.



f. Verify your changes by navigating back to the Care Management ap and adding a **Group By** option in the "Active Care Plan" view. With this option, a Care Coordinator would be able to view Care Plan records by **patients**, **context type** etc.



Congratulations! You have customized an **Active Care Plan** view by adding an editable grid with additional filters to pivot **Care Plan** data by **Patient.**

Summary

Congratulations! You have completed **Lab 01: Care Management.**

In this lab, you learned how to do the following as the defined personas:

Care Coordinator:

- **Navigate** and view Patient 360 data on the dashboard.
- Onboard a new branch location for Lamna healthcare company.
- **Understand the data model** for Practitioner and Patient records and assign Care Plans and Care Teams.
- Navigate patient records to discover their clinical data including Encounters, Medication Requests, Care Plans, Care Timelines, Care Plan Activities etc.

System Customizer:

- **Extend** and customize Care Management App to enable Care Coordinator to provide better care to patients.
- Add Observation data on the Patient form in patient details section.
- Add Claim detail on the Sitemap.
- Customize Care Plan to filter and pivot Care Plan data by Patient.

Lab Survey

We would appreciate your feedback on Microsoft Cloud for Healthcare in a Day and this hands-on-lab, such as the quality of documentation and the usefulness of the learning experience.

Please use the survey at **https://aka.ms/MCHIADSurvey** to share your feedback.

You may provide feedback for each module as you complete it or at the end once you've completed all the modules. Thank you!

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