Index

Data file formats			2
	1.1.	How to read the data files	2
Data	a files		4
	2.1.	Adult and pediatrics file division	4
	2.2.	Consents files	4
	2.2.1.	Consent types lists	5
	2.3.	Patient file	6
	2.3.1.	List of the most common insurance companies	7
	2.4.	Consultations file	8
	2.4.1.	Consultation categories	9
	2.5.	Visit file	11
	2.5.1.	Specialty lists	16
	2.6.	Copayments file	16
	2.7.	Registrations file	17
	2.8.	Echocardiograms file	19
	2.9.	Covid 19 PCR – Abbott ID now file	21
	2.10.	Abdominal Aorta Ultrasound file	21
	2.11.	Pelvic Ultrasounds file	22
	2.12.	Thyroid ultrasounds file	23
	2.13.	Pre-appointment screening file	23
	2.14.	Online Eligibility Check file	24
	2.15.	Outstanding balance file	25
	2.16.	Medical records requests file	26
	2.17.	NYC Universal form file	27
	2.18.	AP Universal form file	28
	2.19.	Growth charts data file	29
	2.20.	Rapid strep tests file	29
	2.21.	Laboratory orders file	30
	2.22.	Free text notes file	30
	2.23.	Correspondence list file	30
	2.24.	Check-outs file	30
	2.25.	Recalls file	31
	2.26.	Immunizations file	31
	2.27.	Out of office tests file	31

1. Data file formats

The files are available in two file formats based on the applicant's choice:

- a. JSON
- b. XML

For common use we recommend the second option – XML format, which might be easier to comprehend due to its simpler structure.

1.1. How to read the data files

a. JSON - (JavaScript object notation) format is a standard format to store and exchange data and is especially suitable for "nesting" data, i. e. making data subgroups. It is both human-readable and machine-readable.

The easiest way to view the data is with Microsoft Notepad or Mac's TextEdit. Other editors may include, but are not limited to:

- Windows: Microsoft Notepad++, Microsoft Word, VS Code, Atom
- Mac: Mac Vim
- Android: File viewer for Android (application)

File structure example:

For more information, you may read: https://developer.mozilla.org/en-us/docs/Learn/JavaScript/Objects/JSON

a. XML - (JavaScript object notation) Extensible Markup Language (XML) is a markup language and file format for storing, transmitting, and reconstructing data. It defines a set of rules for

encoding documents in a format that is both human-readable and machine-readable.

The easiest way to view the data is with Microsoft Excel, Notepad, XML viewer or Mac's TextEdit. You can also open XML files using your Internet browser (Safari, Chrome, Firefox, Edge...) without the possibility to edit them. Other editors may include, but are not limited to:
- Android: File viewer for Android (application)

```
File structure example:
   <?xml version="1.0" encoding="UTF-8" ?>
   <consultations exportversion="1.01.001" exportdatetime="2023-10-14 06:04:08">
     <consultation>
       <datetime>2023-01-19 17:33:58</datetime>
<category>audiology</category>
       <reason>xxx1</reason>
       <pastMedicalHistory>none</pastMedicalHistory>
       <medications></medications>
       <medicationsText></medicationsText>
       <consultant>
         <firstName>Jane/firstName>
         <lastName>Doe</lastName>
         <title>AuD</title>
         <address>
          <street>200 West 57th Street</street>
           <addressLine2>Suite 910</addressLine2>
           <city>New York</city>
           <state>NY</state>
           <zipCode>10019</zipCode>
         </address>
         <phone>9174416094</phone>
         <fax>9174416102</fax>
         <email>jane.doe@patient.com</email>
         <ccEmail></ccEmail>
         <web></web>
       </consultant>
```

For more information, you may read: https://developer.mozilla.org/en-us/docs/web/xml/xml introduction

Notes to data files: files start with the information on the export version and export date and time. If a specific item does not contain any information a 'null' value is shown.

2. Data files

<u>NOTE:</u> All the values in the description below are examples only, although randomly representing what the real values look like!

NOTE2: There are two possible export types, single patient and population export.

2.1. Adult and pediatrics file division

a. Only adult files

Abdominal aorta ultrasound

Echocardiograms

Pelvic ultrasounds

Thyroid ultrasounds

b. Only pediatric files

Ap universal forms

Growth charts data

NYC universal forms

Rapid strep tests

c. Same files, different structures

Medical records requests

Patient

Visits

2.2. Consents file

/Pediatrics, Adult/

The data file named consents.json or consents.xml contain the information on all the single patient's consents given before their visits.

The consents types may vary depending on the visit types and other factors, such as the patient's insurance company or payment options.

For each specific consent the patient has given and are stored in the EMR/database the following info is provided (the values in the example below are for illustration only):

a. The database unique number under which the specific consent is stored: id: 1

b. The date and time the consent was given:

datetime: "2020-11-28 08:59:42"

c. The type of consent – as per the consent lists below:

consentType: "BMC - General Consent"

d. The name of the actual PDF file with the full content of the given signed consent including the final pathing (the pdf files are in a subfolder "consents"):

exportedFileName: consents\/consent-1.pdf

2.2.1. Consent types lists

List of adult consent types:

BMC - registration consent

HIV consent

BMC - vaccine consent

BMC - procedure consent

BMC - decline of recommended treatment

BMC - new registration consent

Healthix - consent

BMC - General Consent

BMC - Authorization for payment consent

Telemedicine consent

COVID-19 Self-testing patient consent

Consent for the use of controlled substances for chronic pain

Medical Photography Consent

Cosmetic procedures consent

Bodhi's psychotherapy consent

No Show and Cancellation Policy consent

No Show and Cancellation Policy consent

List of pediatrics consent types:

Apple Pediatrics-BMC-general registration consent

BMC - Declining recommended vaccine

BMC - Authorization for payment consent

Alternate Vaccination Schedule consent

BMC-Apple Pediatrics-General Consent

Telemedicine consent

Healthix - consent

Medical Photography Consent

BMC - procedure consent

Bodhi's psychotherapy consent

No Show and Cancellation Policy consent

No Show and Cancellation Policy consent

2.3. Patient file

/Pediatrics, Adult - different structures - examples are from Adults/

The patient data file stores the fundamental personal information of the patient (the values in the examples below are for illustration only):

- a. The database unique number under which the specific consent is stored: id: 2
- b. Basic personal data:

firstName: "Jane" middleName: null lastName: "Doe"

dateOfBith: "2000-01-01"

c. Gender – "F" for females and "M" for males:

gender: "F"

d. Latest email:

email: "jane.doe@patient.com",

e. <u>race</u>: in accordance with the US classification standards, full information with the respective codes here: https://phinvads.cdc.gov/vads/ViewValueSet.action?id=67D34BBC-617F-DD11-B38D-00188B398520#

<u>ethnicity</u>: in accordance with the US classification standards, full information with the respective codes here: https://phinvads.cdc.gov/vads/ViewValueSet.action?id=35D34BBC-617F-DD11-B38D-00188B398520,

preferred language:

```
'en' – English
'es' – Spanish
'fr' - French
'ru' – Russian
'pt' – Portuguese
'zh' – Chinese
'other' – if none of the above is relevant
race:
    code: "2106-3",
    text: "White"

ethnicity:
    code: "2186-5"
    text: "Not Hispanic or Latino"
```

```
preferredLanguage
```

```
code: "en"
text: "English"
```

f. Medical record number (internal patient number) and address:

```
medicalRecordNumber: "2",
address

street: "99st Street",
addressLine2: null,
city: "New York",
state: "NY",
zipCode: "12345"
```

g. Phone numbers – up to 3 phone numbers are stored, primary + two additional:

```
phoneNumbers:
    phoneNumberType: "Primary",
```

phoneNumber: "5051234567"

h. Health insurance related information – if the insurance plan holder is different to the patient, the additional personal information is also shown here:

insurance:

```
insuranceNameId: 2,
insuranceName: "Aetna",
insuranceId: "123456789",
pph
relation: "self",
firstName: null,
lastName: null,
dateOfBith: null,
gender: null,
insurance: null
```

2.3.1. List of the most common insurance companies

```
Aetna
Blue Cross / Empire Blue / Blue Shield
Cigna
United Healthcare - Commercial
Oxford
GHI / HIP / Emblem Health
Medicaid New York
Medicare
Magna Care
Medfocus 1199
Fidelis
```

Meritain Health

Oscar Health

UMR

HUMANA

Multiplan-health Smart

Multiplan-Nippon Life ins

Core Source

Health Partners

GEHA

First Health NY

Premera Blue

Aetna Student Health

Allied health benefits

Centivo

MVP

Bright health

United Healthcare - plans - All Savers

2.4. Consultations file

/Pediatrics, Adult/

Consultations show the history of consulting various health problems with the respective specialists.

a. Date of consultation:

Consultations:

datetime: "2023-01-19 17:33:58"

b. Category – the list of categories is below – part 2.3...

category: " Dermatology"

c. Reason: a specific reason on which the consultation focused within its category. There is no predetermined list, the reason is individual.

reason: "acne on face"

d. Past medical history – if the same problem occured it would be recorded here:

pastMedicalHistory: "none"

Medications – the medical drugs prescribed for the patient to treat the consulted problem.
 The list of medications (approved drugs) available in the USA:
 https://www.centerwatch.com/directories/1067-fda-approved-drugs

medications: null

medicationsText: null

f. Consultant – the personal details of the consultant:

firstName: "Dominick",

```
lastName: "Servedio",
title: "AuD",
address:
    street: "200 West 57th Street",
    addressLine2: "Suite 910",
    city: "New York",
    state: "NY",
    zipCode: "10019"
phone: "9174416094",
fax: "9174416102",.
email: null,
ccEmail: null,
web: null
```

2.4.1. Consultation categories

Adult consultation categories

ENT urology cardiology dermatology Gastroenterology orthopedic surgery psychology-csw-couns surgery general neurology Surgery breast ophtalmology audiology physical therapy nutritionist-RD **Psychiatry OB-GYN** allergy-immunology sleep study endocrinology urogynecology surgery-plastic neurosurgery Rheumatology

Podiatry

Hematology-Oncology

nephrology

dentist

dentistry-orthodonti

Pain Management

surgery-vascular

Surgery-colorectal

X-care management

Pulmonary Medicine

Orthotics-supplies

chiropractor

Infectious Disease

Nutrition

ADHD Center

Acupuncture

Sports Medicine

Visiting nurse

PrimaryCP-Internist-

Infertility Specialist

Breast Surgeon

Genetic Counselor

Occupational therapy

oral-maxillofacial surgery

Pediatrics consultation categories

ENT + hearing evalua

Allergy-Immunology

lactation consultant

Cardiology

Dentist

Dermatology

Early Intervention

Endocrinology

Gastroenterology

Genetics

Genitourinary

Hematology

Internal Medicine

Neurology

Neurosurgery

Nutritionist

OB-GYN

Ophthalmology

Orthopedics

Occup. & amp; Phys. T

Podiatrist

Psychology

Pulmonology

Radiology

Renal

Rheumatology

Sleep Disorder

Speech Pathology

Surgery

Other

Developmental pediat

Audiology

Lice

Infectious Diseases

Plastic Surgery

Orthodontics

CPR

Neuropsychologist

Plagiocephaly

Physical Therapy

Nephrology

Child Abuse Evaluati

Feeding Therapist

Adolescent Health

Psychiatry

Birthmark/Vascular surgery

Lipids

2.5. Visit file

/Pediatrics, Adult – different structures - examples are from Adults /

The visit file stores a very complex set of information from the patient's visit.

a. The visits are sorted by their database IDs:

visits:

id: 5

b. Information on the provider (doctor or other healthcare provider). The list of all specialties is below in 2.4.2.:

provider:

id: 3

firstName: "Peter" middleName: null lastName: "Kapralik"

title: MD

specialty: Primary Care

email: provider@mybodhi.com

c. Office is the actual address where the visit took place:

office:

id: 2

text: "Bodhi Medical, 330 W 58th Street S #414, New York NY 10019"

d. The date of visit and the actual time when the visit was completed follows:

dateOfService: "2022-01-10"

datetimeCompleted: "2022-01-10 11:08:34"

e. Chief complaint – the actual main reason for the visit given by the patient:

chiefComplaint: "Sick since yesterday"

f. History of present ilness – as reported by the patient and recorder by the provider:

historyOfPresentIllness:

datetimeProvidedByPatient: null informationProvidedByPatient: null informationProviderByProvider: null

g. Review of systems:

reviewOfSystems:

datetimeOfFindingsProvidedByPatient: null

positiveFindingsProvidedByPatient: null

negativeFindingsProvidedByPatient: null

commentOfFindingsProvidedByPatient: null

providerNotesPatientComplainsOf: "no additional pertinent complaints except for as stated above in the history of present illness"

providerNotesPatientDenies: "fever, reduced oral intake, dizziness, loss of vision, focal muscle weakness, hoarse voice, palpitations, chest pain, shortness of breath, vomiting, diarrhea, rash, bruising, joint swelling, excessive hair loss \growth or other symptoms."

h. Problem list:

problemList: null,

pastHistory: null,
pastMedicalHistory:

text: none reviewed: true

i. The preventive medical history – preventive measures – means vaccines, note: IUDs (Intrauterine device) are applicable only for female patients:

pastMedicalHistoryPreventive:

preventiveMeasures: null

IUDs: null reviewed: true

j. Surgical history – the accrual history or "none":

surgicalHistory:

text: "none", reviewed: true

k. Sexual history – only recorded for adult patients. By the US law, starting at the age of sixteen, the patient can decide to become an adult patient. Not present in pediatrics files:

sexualHistory:

text: null, reviewed: true

ObGyn history – shows the birth history for pediatrics patients, gynecology for female adult patients

obgynHistory: null,

m. Social history – the SNOMED CT codes can be found here: https://groups.google.com/g/edge- test-tool/c/212e7KCvUlk. SNOMED CT SNOMED CT or SNOMED Clinical Terms is a systematically organized computer-processable collection of medical terms providing codes, terms, synonyms and definitions used in clinical documentation and reporting.

socialHistory:

text: "nonsmoker, no excessive ETOH use, no substance abuse, marital status:

single, exercise: few times a week, occupation: (no unusual exposures)",

smokingStatus:

code: "266919005"

status: "Nonsmoker-Never smoker"

years: 0

comment: null reviewed: true

n. Family history:

familyHistory:

text: "no significant heart disease, cancer or other family history in 1st degree relatives"

reviewed: true

o. Medication - The list of medications (approved drugs) available in the USA:

https://www.centerwatch.com/directories/1067-fda-approved-drugs:

medications:

activeMedications: null

pastPrescribedActiveMedications: null

manualMedications: null manualSupplements: null

notes: "none"
reviewed: true

p. Allergies:

allergies:

activeAllergies: null

notes: "NKDA, no known food allergies"

reviewed: true

q. Vital signs – BMI: Body mass index is a value derived from the mass (weight) and height of a person.

Respiratory rate: the number of breaths a person takes per minute.

vitalSigns:

temperature: null weight: null pulse: null height: null bodyFatPerc: null

respiratoryRate: null waistCircumference: null

bloodPressure: null

bmi: null
other: null

r. Physical exam:

physicalExam: headerText: null categories: null otherText: null

s. Files, tests, consultations, lab order requests and an assessment plan:

attachedFiles: null inOfficeTests: null consultations: null outOfficeTests: null labOrderRequest: null assessmentAndPlan: "The assessment and plan for this patient visit took into consideration the patients past history, exam(s), and any available laboratory and imaging results.",

"In the development of the assessment and plan for this patient, the differential diagnoses, options in treatment as well as the risks and benefits of testing and treatment were reviewed, which included the risks and benefits of no further investigation or treatment.",

"I have exercised an independent judgment in forming my diagnostic and therapeutic decisions."

t. Diagnoses – the specific diagnoses for the patient ascertained at the visit.

The US classification here: https://www.cms.gov/medicare/coordination-benefits-recovery/overview/icd-code-lists:

diagnoses: null,

u. Informed texts:

informedTexts:

"Information regarding the nature, possible course of illness and what to expect was reviewed with the patient.",

"Follow up instructions were provided along with methods of emergency access to medical care and \forall or advice",

"The patient was given explicit instructions on what to do in case of a worsening status of health, including when to call the doctor and when to seek immediate attention at an emergency room.",

"Medication dose and proper use were reviewed with patient as necessary. Options in treatment including no treatment, the benefits and potential side effects of each medication were likewise reviewed.",

"Diagnostic testing, diagnosis, and treatment plans were all reviewed with the patient. Pretesting counseling was provided and the corresponding risks and benefits of these tests including alternatives and options of no tests were likewise reviewed with the patient.",

"The risks and benefits of non-compliance were reviewed with the patient.",

"Age appropriate anticipatory guidance was given, with explicit detail regarding lifestyle, diet, exercise, illness prevention and screening, screening tests, immunizations, safety and patient wishes. Personalized guidance and counseling was given, with explicit detail regarding pertinent identified issues such as weight, lifestyle, diet, exercise, illness prevention and screening, screening tests, immunizations, safety, mental well being and \forall or patient based inquiry.",

"Appropriate Information were given to the patient prior to the administration of any medication and\or vaccine.",

"The risks and benefits of preventive medications, screening tests and vaccinations including alternatives and no medication, test or vaccine were reviewed with the patient.",

"The patient was given ample time for all questions to be addressed and all questions were addressed. Contact information and time for a future follow up questions such that all questions could be reiterated was offered."

v. Recommended follow-up visits:

recommendedFollowUpVisit: null,

w. Note – special provider's note with additional information:

Note (*example*): "In the assessment and treatment of this patient (physical evaluation\/ diagnostic modalities\/ treatment options,) the care given was dependent upon the consideration of multiple sources of information. Whether or not all thoughts were expressed in writing in making these considerations, it is important to note still that many factors are included in each and every patient encounter..."

2.5.2. Specialty lists

Adult specialty list

Cardiology
Gynecology
Psychology
Gastroenterology
Nutrition & DM Education
Primary Care
Family Medicine
Endocrinology
Dermatology

Pediatrics specialty list:

General pediatrics
Family practice
Dermatology
Lactation consultant
Psychology

2.6. Copayments file

/Pediatrics, Adult – also includes cash copayments/

'Copayments' are the part of the amount paid for the visit directly by the patient - as opposed to the part covered by the insurance company.

a. Each individual copayment has its ID and the date and time identification:

copayments:

id: 1,

datetime: "2020-11-28 07:35:44"

b. The 'copayment' is the due amount, followed by the 'outstanding balance' (the unpaid amount not covered by the insurance) and the 'total amount' of the whole transaction:

provider: null

payerFirstName: "Tester" payerLastName: "Tester" copayment: 39.39 Documentation for the UDOC Technologies export version: "1.01.001"

outstandingBalance: 0 totalAmount: 39.39

c. This part dispays the specific transaction ID, the number of authorizations given by the patient and the date the authorization was given.

transactionId: "pi 1HsSdxLjwkL9oeBVRsEtal1d"

futurePaymentsAuthorization: 1

futurePaymentsAuthorizationDateTo: "2020-11-30"

d. Refund comes in place in case the insurance company pays an amount already paid by the patient and if the patient decides to get the money back. The alternative is to keep the credit for future use:

refunds: null

e. The name of the actual PDF file with the payment receipt and copayment authorization (if any) including the final pathing (the pdf files are in a subfolder "consents"):

exportedFileName: "copayments\/copayment-1.pdf"

2.7. Registrations file

/Pediatrics, Adult/

Registrations are done by the patient after booking an appointment and include a very detailed questionnaire with information critical to the visit.

a. Registration form and provider's personal and other information. The exact form stems from the type of visit the patient is making:

registrations:

id: 1

type: "online"

formName: "I'm here for sick visit or follow up on illness or treatment"

dateTime: "2020-11-28 07:08:32"

provider:

id: 3

firstName: "Peter" middleName: null lastName: "Provider"

title: null specialty: null

email: "provider@mybodhi.com"

b. Appointment – the basic details of the booked appointment:

appointment:

date: "2020-11-28" timeFrom: "15:00:00" timeTo: "15:15:00" **appointmentType:** "An Estab. pt-sick-followup visit OTHER than respiratory inf."

c. Questionnaire – The content of the questionnaire is designed by the EMR admin part. The type of questionnaire a patient gets to fill is determined by the provider specialty and type of visit:

questionnaire:

chiefComplaintQuestion:

question: "What is the main reason for your visit:"

description: null
yesNoQuestion: false

answer: "xxx"

highlightedAnswer: false

comment: null

d. Sections – the questionnaire is divided into sections. Each section contains a number of related questions:

sections:

title: "Please provide details of any preventive health concerns, health risks, symptoms or illness related reasons for your visit"

e. Questions - a question may have a description, may be highlighted (showing a certain significance), may be either a 'Yes/No' or an open-ended question. Some questions may have additional sub-questions:

An example of an open-ended question:

questions:

question: "Please describe in a chronological order details of your medical concerns, health risks, symptoms or illness:"

description: "if you have any specific symptoms or illness please try to describe in own words as you were trying to tell all details to the doctor. Thank you."

smokingStatusQuestion: false

answer: null

smokingStatusAnswer: null
highlightedAnswer: null

comment: null
subquestions: null

An example of a Yes/No question:

question: "do you have any specific questions or concerns you

would wish to ask today?"

description: null

smokingStatusQuestion: false

answer: "No"

Documentation for the UDOC Technologies export version: "1.01.001"

smokingStatusAnswer: null
highlightedAnswer: false

comment: null
subquestions: null

f. Agreement text – the confirmation by the patient that the provided answers are true:

agreementText: "I, Test Tester, the person registering for this visit hereby confirm that I have provided this health related information which is true and to the best of my knowledge."

g. Signed – states if the agreement has been signed:

signed: null

2.8. Echocardiograms file

/Adult only/

Echocardiograms are used in cardiology (heart disease treatment). More can be read here: https://www.nature.com/articles/s41746-017-0013-1

a. Echocardiogram ID followed by the provider ID and details. The list of all specialties is in 2.4.2.

echocardiograms:

id: 2
provider:

id: 3

firstName: "Peter" middleName: null lastName: "Provider"

title: MD

specialty: Cardiology

email: provider@mybodhi.com

b. Typically, the <u>interpreting physician</u> and the <u>sonographer</u> (or a "diagnostic medical sonographer") are the same person. Imaging equipment and soundwaves (ultrasound) are used to form images of the heart.

On <u>blood pressure</u>, read more here: <u>https://www.heart.org/en/health-topics/high-blood-pressure/understanding-blood-pressure-readings</u>

<u>Indications</u> are any signs that may point to heart issues:

datetime: "2023-03-23 17:44:51" dateOfStudy: "2023-03-23"

interpretingPhysician: "Dio Car, MD"

patientHeight: "0.0 ft 0.0 in"

patientWeight: "0" bloodPressure: "0\/0" sonographer: "Dio Car, MD" referringProvider: "PK" referringProviderFax: "PK" indication: "Chest pain"

c. <u>Two dimensional (2D) measurements</u> ultrasound - is the most commonly used modality in echocardiography. The two dimensions presented are width (x axis) and depth (y axis):

There are 8 two dimensional measurements as follows:

- Left Ventricular End-Diastolic Diameter
- Left Ventricular End-Systolic Diameter
- Left Ventricular Ejection Fraction
- Fractional Shorten
- Anterior Septal Thickness
- Posterior Wall Thickness
- Left Atrial Diameter
- Aortic Root Diameter
- d. <u>Doppler measurements</u> is the principal ultrasound technique for obtaining hemodynamic information (direction and velocity of blood flow).

There a 7 Doppler measurements as follows:

- Mitral E Velocity
- Mitral A Velocity
- Mitral E\/A Ratio
- Mitral Deceleration Time
- Peak Aortic Velocity
- Peak Pulmonic Velocity
- Peak Tricuspid Regurgitant Jet Velocity\t
- e. Findings stemming from the detailed results of the above measurements:

Findings:

ECG rhythm: "Sinus rhythm."

Study quality: "This was a technically excellent study."

Left Ventricle: "LV size, wall thickness and systolic function are

normal, with no regional wall motion abnormality."

Left Atrium: "The left atrial size is normal."

Right Ventricle: "The right ventricle is normal in size and

function."

Right Atrium: "The right atrial size is normal."

Aortic Valve: "The aortic valve is trileaflet and appears structurally normal. There is no evidence of aortic regurgitation."

Mitral Valve: "There is trace mitral regurgitation."

Tricuspid Valve: "Trace tricuspid regurgitation present."

Pulmonic Valve: "Trace pulmonary regurgitation." **Pericardium:** "There is no pericardial effusion."

f. Conclusions – to summarize if the result is normal or any issues have been found. To find out more about echocardiography you may read https://www.heart.org/en/health-topics/heart-attack/diagnosing-a-heart-attack/echocardiogram-echo:

conclusions: "1. LV size, wall thickness and systolic function are normal, with no regional wall motion abnormality.\r\n2. The right ventricle is normal in size and function.\r\n3. No significant valvular pathology."

2.9. Covid 19 PCR - Abbott ID now file

/Pediatrics, Adult/

These data provide insight into the Covid 19 test results. A further insight into Abbott PCR tests can be found here: https://www.abbott.com/IDNOW.html:

- a. Provider and specific office.
- b. Date, test type and the result positive or negative with other details:

datetime: "2021-04-06 18:13:27"

dateOfTest: "2021-04-06"

testType: "Covid 19 PCR - Abbott ID now"

testResult: "negative"

symptoms: null

dateOfSymptoms: null

knownCloseContact: "unknown" closeContactComment: null

c. <u>Additional note</u> - is to draw the attention to the fact that the test may not have had accurate results and the comment is rather more technical:

additionalNote: "This test as any test needs to be interpreted in light of the pretest probabilities and the test limitations. A negative test means that the specific RNA (Sars-Cov-2, Streptococcus, Influenza A\/B or RSV virus) was not detected. A negative test itself does not rule out possibility of infection. If infection is still suspected, ..."

comment: "This test was performed on Abbott ID-now equipment."

2.10. Abdominal Aorta Ultrasound file

/Adult only/

<u>An Abdominal Aorta</u> is the largest artery (blood vessel) in the abdominal cavity, which supplies oxygenated blood from the heart to all body organs. <u>Abdominal Aorta Ultrasound</u> is the most common test to diagnose abdominal aortic aneurysms. Sound waves are used to show how blood flows through the structures in the abdominal (belly) area. <u>An aneurysm</u> is an abnormal swelling or bulge in the wall of a blood vessel.

- a. Provider's details.
- b. Procedure <u>Abdominal aorta duplex</u> (echo Doppler) scan is an ultrasound exam that uses sound waves to produce images of the aorta.

<u>Indications</u> - are any signs that may point to Aorta issues:

datetime: "2023-03-23 17:45:08" dateOfProcedure: "2023-03-14" interpretingPhysician: "Dio Car, MD" procedure: "Abdominal Aorta Duplex"

sonographer: "Dio Car, MD"
referringProvider: "PK"
referringProviderFax: "PK"

indication: ""

c. Findings – the interpreted result:

findings: "Normal luminal dimensions with cm in its greatest transverse diameter. No atherosclerotic changes or aneurysmal changes noted."

d. Impression on the exam and (rather technical) comment:

impression: "Normal study."

comment: "The abdominal aorta is examined using B-mode, real-time 2-D, color flow mapping and Doppler spectral analysis."

2.11. Pelvic Ultrasounds file

/Adult only/

A <u>pelvic ultrasound</u> is a noninvasive diagnostic exam that produces images that are used to assess organs and structures within the <u>woman's pelvis</u>. It allows quick visualization of the woman's pelvic organs and structures including the uterus, cervix, vagina, fallopian tubes and ovaries. In men, it's used to view the bladder, prostate gland, seminal vesicles.

- a. Provider's details.
- b. <u>Procedure</u> as explained above.
 <u>Indications</u> are any signs that may point to issues in Pelvis:

datetime: "2023-03-23 17:46:33" dateOfProcedure: "2023-03-23"

interpretingPhysician: "Real Specialist, MD"

procedure: "Pelvic Ultrasound"
sonographer: " Real Specialist, MD "
referringProvider: "Peter Provider"

referringProviderFax: "zzz"

indication: ""
dateOfStudy: null

c. Findings – the interpreted result, impression on the exam:

findings: "Normal uterus. \r\nNormal endometrial thickness for patient's age.\r\nNormal left and right ovaries.\r\nNo free fluid."

impression: "Normal study."

2.12. Thyroid ultrasounds file

/Adult only/

Thyroid ultrasound is a sound wave picture of the thyroid gland taken by a hand-held instrument (sonograph) and translated to a 2-dimensional picture. It is used in diagnosis of tumors, cysts or goiters of the thyroid. *Provider's details*.

a. Procedure – as explained above.

b. <u>Indications</u> - are any signs that may point to issues in Pelvis:

datetime: "2023-03-28 18:46:22" dateOfProcedure: "2023-03-28"

interpretingPhysician: "Real Specialist, MD"

procedure: "Pelvic Ultrasound"
sonographer: " Real Specialist, MD "
referringProvider: "Peter Provider"

referringProviderFax: "zzz"

indication: ""
dateOfStudy: null

c. Findings – the interpreted result, impression on the exam:

findings: "Normal uterus. \r\nNormal endometrial thickness for patient's age.\r\nNormal left and right ovaries.\r\nNo free fluid."

impression: "Normal study."

Comment: ""

2.13. Pre-appointment screening file

/Pediatrics, Adult/

This screening is related to the Covid 19 outbreak and checks for possible exposure of the patient before finalizing an appointment.

a. The date/time and result of the screening is shown:

pre_appointment_screenings:

name: "Pre-screening Related to Coronavirus Outbreak"

datetime: "2020-10-18 12:34:50"

result: "positive"

b. The specific question is shown. Note: over time the exact question may change **questions:**

question: "In the last 4 weeks have you, your family member any of your close contacts had any symptoms suggestive of Covid 19 infection? (Symptoms may include aches, fevers, cough, headache, diarrhea, loss of taste, smell or unusual rash)"

answer: "Yes"
answerHighlighted: 1

2.14. Online Eligibility Check file

/Pediatrics, Adult – also applies to manual checks/

Online Eligibility Check means healthcare insurance plans checking via a third party system.

a. <u>Visit type</u> – describes the nature of the visit, is a subset of specialty, also says if the visit is for a new or existing client and dictates the costs as well as the insurance plans give specific compensation for a specific visit type and time:

online-eligibility-checks:

visitType: "An Estab. pt-sick-followup visit OTHER than respiratory inf."

b. Besides basic info on the patient's insurance, also its validity is checked (InsuranceActive, true or not):

datetime: "2020-10-18 12:34:45"

insuranceName: "EMPIRE BCBS NEW YORK" insuranceId: "BODHI_MIXMATCH_001"

insuranceActive: true

insuranceComment: "Active Coverage"

c. <u>Cost estimates</u> – as provided by the Eligibility check based on the type of visit. <u>Note:</u> although the aim is to estimate the costs as much in advance as possible, not all needed medical examinations or procedures can be predicted before hand:

costEstimate: 39.39 providerPrice: 87.76

success: true
listOfPrices:

text: "if you wish evaluation of acute or chronic illness"

price: 39.39

text: "if you need also blood draw"

price: 3

2.15. Outstanding balance file

/Pediatrics, Adult/

This part of export shows any unpaid amount by the patient, it does not show any zero or positive balances. An outstanding balance record may be created:

- immediately after the visit (when the check out is run).
- after the due date when the patient receives EoB from insurance.
 - a. Provider information:

outstanding_balances:

id: 4,
provider:
id: 100

firstName: "Martin" middleName: null lastName: "Provider" title: "M.D., M.P.H." specialty: "Primary Care"

email: provider@mybodhi.com

b. Date of the visit (including online):

dateOfService: "2022-08-01"

c. <u>Total amount</u> – the amount of the initial outstanding balance. Paid amount – the amount paid in the meantime by the patient, if any:

totalAmount: 50 paidAmount: 50

items:

datetime: "2022-08-03"

amount: 50,

comment: "Test OB"

d. <u>Adjustments</u> - amounts written off for reasons such as: insurance remittance. discount. wrong balance etc.:

adjustments: null

e. Payments, Refunded amount – an amount refunded to the patient, full or partial.

The refund reasons are:

- patient prepaid more than their insurance states for
- patient paid twice e.g. via Stripe and PayPal

If a refund is made -> the outstanding balance will be adjusted or closed.

payments:

Documentation for the UDOC Technologies export version: "1.01.001"

datetime: "2022-09-09"

amount: 50

amountRefunded: 0
paymentMethod: card

comment: null

2.16. Medical records requests file

/Pediatrics, Adult – different structure – examples are from Pediatrics/

Medical records requests (MRR) are specific requests ever made by an internal or an external provider about the patient. They contain the data (if ever a specific request had been made) most of which is also documented in this document.

a. <u>Created by</u> – person initiating request, who is logged in and is a holder of a PIN code (to be identified with).

Provider to – the person to whom the records are to be released – if it is internal provider (may be "to self" as well) or an external provider:

medical_records_requests:

createdBy:

id: 3

firstName: "Peter"

etc. personal details...

providerTo:

personal details...

- b. Reasons (for release of medical records) may be as follows:
 - request to self
 - transfer to another practice/relocation
 - records to specialist/treatment related
 - for insurance/ third party review
 - release to Attorney or other legal request
 - other (to be specified individually or comment):

Reasons

datetime: "2021-10-02 11:17:51"

reasonForReleaseOfMedicalRecords: "other"

- c. Request to release medical records was received as may be as follows:
 - in person request
 - email request
 - fax from insurance
 - other:

requestToReleaseMedicalRecordsWasReceivedAs: "email request"

- d. Info for Provider: please release records to:
 - personal details and the address of the person

infoForProviderPleaseReleaseRecordsTo: null

e. The records are to be delivered – by fax, by email or by mail:

theRecordsAreToBeDelivered: "by email"

- f. HIPAA release form A HIPAA authorization form is a document that individual signs for their health provider before the entity may use or disclose their protected health information (PHI). HIPAA authorizes the sharing of PHI for the following purposes:
 - Treatment
 - Payment
 - Healthcare Operations:

wasHipaaReleaseFormAvailableWithThisMedicalRequest: true personInitiatingTheRecordsRelease: "Peter"

g. For the following see the respective sections of this documentation

registrations: 5

visits: 5

immunizationRecords: 1 growthCurvesData: 1

h. <u>AP and NYC (New York City) Universal Forms</u> – gives the information when (and therefore also how many times) have the forms been provided including their full content. The forms are described in their respective sections being standalone files.

apUniversalForms: 1 nycUniversalForms: 1

2.17. NYC Universal form file

/Pediatrics only/

NYC Universal form is a form in which the New York City authority requests data on the pediatrics patients.

date: "2021-10-02"

form:

birthHistory:

birthHistory: null
uncomplicated: true
premature: false

weeksOfGestation: null complicatedBy: false complicatedByValue: null pastMedicalHistory:

pastMedicalHistory: null
onlyAsStatedAbove: true

checkAdditionalSelectedDiagnoses: false

asthma:

etc. more info on asthma...

i. Other disorders/disabilities reported on the NYC form:

anaphylaxis: false,

behavioralMentalHealthDisorder: false congenitalOrAcquiredHeartDisorder: false developmentalLearningProblem: false

diabetes: false

orthopedicInjuryDisability: false

seizureDisorder: false

speechHearingOrVisualImpairment: false

tuberculosis: false **hospitalization:** false

surgery: false

addendumAttached: false

j. More information on the NYC form in the following sections:

medications:

allergies:

physicalExamination:

generalAppearanceNormal: true generalAppearanceAbnormal: null

etc. other physical examination desscription

developmental:

nutrition:

screeningTests:

immunizationRecords:

assessment:

recommendations:

referrals:

k. Provider, facility (place) and whether the document had been signed – in relation to the NYC form:

provider:

Etc. provider's personal details incl. the licence No.

facility:

Facility address...

2.18. AP Universal form file

Apple Pediatrics (AP) is a Bodhi Medical division providing healthcare to childer, while the AP Universal form is the form in which the child healthcare reports are standardly issued. The report is similar to the above NYC report, having the following division:

- a. Past medical history
- b. Medications
- c. Allergies
- d. Physical Exam
- e. Screening Tests a screening test is done to find possible health problems or diseases in people who don't have any symptoms of disease.
- f. Immunization (vaccines)
- g. Assessment
- h. Recommendations
- i. Provider
- j. Facility (Apple pediatrics specific facility address)
- k. Signed

2.19. Growth charts data file

/pediatrics only/

The growth curves are measures for child patients in order to document and check on their development.

a. <u>Body Mass Index (BMI)</u> is a person's weight in kilograms (or pounds) divided by the square of height in (centi)meters (or feet). A high BMI can indicate high body fatness.

growth_charts_data:

comment: "Growth charts data."

items:

Datetime: "2023-10-11 18:05:55"

weightKg: 22 heightCm: 120

headCircumferenceCm: 25

bmi: 20

2.20. Rapid strep tests file

/pediatrics only/

The rapid strep test (RST) is a rapid antigen detection test (RADT) that is used to assist in the diagnosis of bacterial pharyngitis caused by group A streptococci (GAS). The bacteria causes what is commonly called a sore throat.

a. Provider and specific office.

b. Date, test type and the result – positive or negative with other details:

datetime: "2021-05-06 18:13:29"

dateOfTest: "2021-05-06"
testType: "Rapid strep test"
testResult: "negative"
symptoms: null

dateOfSymptoms: null

knownCloseContact: "unknown"

closeContactComment: null rapid strep tests:

d. <u>Additional note</u> - is to draw the attention to the fact that the test may not have had accurate results and the comment is rather more technical:

additionalNote: "This test as any test needs to be interpreted in light of the pretest probabilities and the test limitations. A negative test means that the specific RNA (Sars-Cov-2, Streptococcus, Influenza A\/B or RSV virus) was not detected. A negative test itself does not rule out possibility of infection. If infection is still suspected, ..."

comment: "This test was performed on xy equipment."

2.21. Laboratory orders file

/Pediatrics, Adult/

Laboratory orders are requests to the respective laboratories for testing of the samples taken from the patients such as a blood sample. Where applicable, laboratory orders are done electronically via Application Programming Interfaces (APIs).

The content of the file should only be interpreted by a specialist.

2.22. Free text notes file

/Pediatrics, Adult/

Free text notes are notes that a provider can add to comment on the patient at any time. Reason for creating a note is to be also stated by the provider.

2.23. Correspondence list file

/Pediatrics, Adult/

The correspondence list file shows any corespondence exchanged between the healthcare provider and the patient.

2.24. Check-outs file

/Pediatrics, Adult/

The check-outs show the pricing for the healthcare services that are also marked by CPT codes at the point of checks out by the patient. The CPT codes stand for The Current Procedural Terminology, were

created by American Medical Association and are used to report procedures and services to federal and private payers for reimbursement of provided healthcare.

2.25. Recalls file

/Pediatrics, Adult/

Recalls are recommendations by the provider sent typically by email as a follow up after the patient's visit should the provider find them necessary. The typical recommendation may be to sheedule another medical visit.

<u>SNOMED codes</u> - SNOMED Clinical Terms is a systematically organized computer-processable collection of medical terms providing codes, terms, synonyms and definitions used in clinical documentation and reporting- https://www.snomed.org/

<u>ICD codes</u> – the US classification of the diagnoses - <u>https://www.cms.gov/medicare/coordination-benefits-recovery/overview/icd-code-lists</u>

2.26. Immunizations file

/Pediatrics, Adult/

Immunizations are patient records on the vaccines administered to them by either internal or external providers.

2.27. Out of office tests file

Out of office tests are patient records on the tests performed by external facilities.

3. Resources:

Abbott now PCR Covid 19 test:

https://www.abbott.com/IDNOW.html

Echocardiogram:

 $\underline{https://www.heart.org/en/health-topics/heart-attack/diagnosing-a-heart-attack/echocardiogram-echo}\\$

Understanding blood pressure:

https://www.heart.org/en/health-topics/high-blood-pressure/understanding-blood-pressure-readings

Diagnoses – the US classification:

https://www.cms.gov/medicare/coordination-benefits-recovery/overview/icd-code-lists

Echocardiograms:

https://www.nature.com/articles/s41746-017-0013-1

Race:

https://phinvads.cdc.gov/vads/ViewValueSet.action?id=67D34BBC-617F-DD11-B38D-00188B398520#

Ethnicity:

https://phinvads.cdc.gov/vads/ViewValueSet.action?id=35D34BBC-617F-DD11-B38D-00188B398520

The list of medications (approved drugs) available in the USA:

https://www.centerwatch.com/directories/1067-fda-approved-drugs

SNOMED CT smoking related codes:

https://groups.google.com/g/edge-test-tool/c/212e7KCvUlk

SNOMED

https://www.snomed.org/

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