What resource would you use for?

For each of the following situations / elements, indicate which resource is the most suitable to represent it.

You need to indicate the name of the resource and why you have chosen it.

1. An oral diet order  
   HINT: A request for oral diets (including general diets such as General Healthy diet, or therapeutic diets such as Consistent Carbohydrate, 2 gram Sodium, or Fluid Restricted)  
     
   **Resource:** NutritionOrder  
   **Document:** <https://www.hl7.org/fhir/nutritionorder.html>  
   **Choice Reason:**   
   Scope and usage states: *“The NutritionOrder resource describes a request for oral diets (including general diets such as General Healthy diet, or therapeutic diets such as Consistent Carbohydrate, 2 gram Sodium, or Fluid Restricted)”*
2. Radiology report  
   HINT: It is the report. It is not the DICOM images  
     
   **Resource:** DiagnosticReport  
   **Document:** <https://www.hl7.org/fhir/diagnosticreport.html>  
   **Choice Reason:**   
   Scope and usage states: “*The findings and interpretation of diagnostic tests performed on patients, groups of patients, products, substances, devices, and locations, and/or specimens derived from these. The report includes clinical context such as requesting provider information, and some mix of atomic results, images, textual and coded interpretations, and formatted representation of diagnostic reports. The report also includes non-clinical context such as batch analysis and stability reporting of products and substances.*”  
     
   There are multiple resources that are reports but diagnostic report is one that would be used by a radiologist and include their images, context and findings of the patient or group of patients.
3. Fetal and Maternal Monitor  
   HINT: It is the medical equipment.  
     
   **Resource:** Device  
   **Document:** <https://www.hl7.org/fhir/device.html>  
   **Choice Reason:**   
   Scope and usage states: “This is a base resource that tracks individual **instances** of a device and their location.”  
     
   The phrase "It is the medical equipment" aligns well with the `Device` resource, which represents a physical piece of medical equipment. On the other hand, the `DeviceRequest` resource does not represent a physical device, but rather a request for a device to be used.
4. An optometrist  
   HINT: It is the physicians  
     
   **Resource:** Practitioner  
   **Document:** <https://hl7.org/fhir/practitioner.html>  
   **Choice Reason:**   
   Scope and usage states: “Practitioner covers all individuals who are engaged in the healthcare process and healthcare-related services as part of their formal responsibilities and this Resource is used for attribution of activities and responsibilities to these individuals. Practitioners include (but are not limited to):

* physicians, dentists, pharmacists
* physician assistants, nurses, scribes
* midwives, dietitians, therapists, optometrists, paramedics
* medical technicians, laboratory scientists, prosthetic technicians, radiographers
* social workers, professional homecare providers, official volunteers
* receptionists handling patient registration
* IT personnel merging or unmerging patient records
* service animal (e.g., ward assigned dog capable of detecting cancer in patients)
* a bus driver for a community organization
* a lawyer acting for a hospital or a patient
* a person working for a supplier of a healthcare organization”

1. Dictated Sound Clip  
   HINT: It is the audio recordings  
     
     
   **Resource:** DocumentReference and/or Binary  
   **Document(s):**   
   <https://hl7.org/fhir/documentreference.html>  
   <https://hl7.org/fhir/binary.html>  
     
   **Choice Reason:**   
   Scope and usage states: “*A DocumentReference resource is used to index a document, clinical note, and other binary objects such as a photo, video,* ***or audio recording****, including those resulting from diagnostic or care provision procedures, to make them available to a healthcare system.*DocumentReference contains metadata, inline content or direct references to documents such as:

* [CDA [icon](http://www.hl7.org/implement/standards/product_brief.cfm?product_id=7)](http://www.hl7.org/implement/standards/product_brief.cfm?product_id=7) documents in FHIR systems
* [FHIR documents](https://hl7.org/fhir/documents.html) stored elsewhere (i.e. registry/repository following the XDS model)
* [PDF documents [icon](http://en.wikipedia.org/wiki/Portable_Document_Format)](http://en.wikipedia.org/wiki/Portable_Document_Format), Scanned Paper, and digital records of faxes
* Clinical Notes in various forms
* Image files (e.g., JPEG, GIF, TIFF)
* Video files (e.g., MP4, WMV)
* Audio files (e.g., WAV, MP3)
* Non-Standard formats (e.g., CSV, RTF, WORD)
* Other kinds of documents, such as records of prescriptions or immunizations”

There was a Media Resource but after R4 is no longer available in R5 which is the current version. See: <https://www.hl7.org/fhir/R4/media.html>

1. Respiratory Rate  
   HINT: It is the vital sign  
     
   **Resource:** Observation  
   **Document:** <https://hl7.org/fhir/observation.html>  
   **Choice Reason:**   
   Scope and usage states: “Observations are a central element in healthcare, used to support diagnosis, monitor progress, determine baselines and patterns and even capture demographic characteristics, as well as capture results of tests performed on products and substances. Most observations are simple name/value pair assertions with some metadata, but some observations group other observations together logically, or even are multi-component observations. Note that the [DiagnosticReport](https://hl7.org/fhir/diagnosticreport.html) resource provides a clinical or workflow context for a set of observations and the Observation resource is referenced by DiagnosticReport to represent laboratory, imaging, and other clinical and diagnostic data to form a complete report.

Uses for the Observation resource include:

* Vital signs such as [body weight](https://hl7.org/fhir/observation-example.html), [blood pressure](https://hl7.org/fhir/observation-example-bloodpressure.html), and [temperature](https://hl7.org/fhir/observation-example-f202-temperature.html)
* Laboratory Data like [blood glucose](https://hl7.org/fhir/observation-example-f001-glucose.html), or an [estimated GFR](https://hl7.org/fhir/observation-example-f205-egfr.html)
* Imaging results like [bone density](https://hl7.org/fhir/observation-example-bmd.html) or fetal measurements
* Clinical Findings\* such as [abdominal tenderness](https://hl7.org/fhir/observation-example-abdo-tender.html)
* Device measurements such as [EKG data](https://hl7.org/fhir/observation-example-sample-data.html) or [Pulse Oximetry data](https://hl7.org/fhir/observation-example-satO2.html)
* Device Settings such as mechanical ventilator parameters.
* Clinical assessment tools such as [APGAR](https://hl7.org/fhir/observation-example-5minute-apgar-score.html) or a [Glasgow Coma Score](https://hl7.org/fhir/observation-example-glasgow.html)
* Personal characteristics: such as [eye-color](https://hl7.org/fhir/observation-example-eye-color.html)
* Social history like tobacco use, family support, or cognitive status
* Core characteristics like pregnancy status, or a death assertion
* Product quality tests such as pH, Assay, Microbial limits, etc. on product and substance”

**Observations support vital signs data.**

1. Sputum  
   HINT: Sputum is the material that comes up from air passages when you cough deeply. It is the sample for lab test  
     
   **Resource:** Specimen  
   **Document:** <https://hl7.org/fhir/specimen.html>  
   **Choice Reason:**   
   Scope and usage states: *“*Any material sample:

* taken from a biological entity, living or dead
* taken from a physical object or the environment*”*

1. Pharmacy  
   HINT: It is the healthcare service  
     
   **Resource:** HealthcareService  
   **Document:** <https://hl7.org/fhir/healthcareservice.html>  
   **Choice Reason:**   
   Scope and usage states: “The HealthcareService resource is used to describe a single healthcare service or category of services that are provided by an organization at a location.  
   The location of the services could be virtual, as with telemedicine services.

Common examples of HealthcareServices resources are:

* Allied Health
* Clinical Neuropsychologist
* Podiatry Service
* Smallville Hospital Emergency Services
* Respite care provided at a nursing home or hostel
* 24hr crisis telephone counseling service
* Information, advice and/or referral services; Disability, Telecommunications
* Rural TeleHealth Services
* Hospital in the home
* Yellow Cabs
* Pharmacy
* Active Rehab
* Social Support
* Drug and/or alcohol counseling
* Day Programs, Adult Training & Support Services
* Consulting psychologists and/or psychology services
* Group Hydrotherapy
* Little River Home Maintenance
* CT Head Scan w/o Contrast
* CT Head Scan with Contrast
* CT Head+Chest Scan with Contrast

*HealthcareService resources do not represent Computer related Services (not SOA)*”

1. Patient educational material sent by a provider to a patient  
   HINT: It is a record of a communication  
     
   **Resource:** Communication  
   **Document:** <https://hl7.org/fhir/communication.html>  
   **Choice Reason:**   
   Scope and usage states: The purpose of a Communication resource is to surface that data was shared to track adherence to guidelines or protocols or to provide business documentation of actions taken. Communication can also be used as part of an information exchange to provide context about the information sharing occurring. Please see [below](https://hl7.org/fhir/communication.html#wrapping) for guidance on when this is appropriate.

Communication is one of the [event](https://hl7.org/fhir/workflow.html#event) resources in the FHIR [workflow](https://hl7.org/fhir/workflow.html) specification.

This resource is a record of a communication even if it is planned or has failed. A communication is a record of the conveyance of information from one entity, a sender, to another entity, a receiver. The sender and receivers may be patients, practitioners, related persons, organizations, or devices. Communication use cases include:

* A reminder or alert delivered to a responsible provider
* A recorded notification from the nurse to the on-call physician (or any other specified person) that a patient's temperature exceeds a value
* A response from a public health agency to a provider caring for a patient presenting with a communicable disease reportable to the public health agency
* Patient educational material sent by a provider to a patient
* Unable to deliver lab results to ordering physician
* Submission of supplementary health information to a payer in support of a claim
* Non-patient specific communication use cases may include:
* A nurse call from a hall bathroom
* Advisory for battery service from a pump*”*

1. Hernia repair.  
   HINT: In a traditional repair, the surgeon makes an incision several inches long near the hernia  
     
   **Resource:** Procedure  
   **Document:** <https://hl7.org/fhir/procedure.html>  
   **Choice Reason:**   
   Scope and usage states: *“*Procedure is one of the [event](https://hl7.org/fhir/workflow.html#event) resources in the FHIR [workflow](https://hl7.org/fhir/workflow.html) specification.

This resource is used to record the details of current and historical procedures performed on, with, or for a patient, practitioner, device, organization, or location. Examples include surgical procedures, diagnostic procedures, endoscopic procedures, biopsies, counseling, physiotherapy, personal support services, adult day care services, non-emergency transportation, home modification, exercise, verification of enrollment qualifications for a social program etc. Procedures may be performed by a healthcare professional, a service provider, a friend or relative or in some cases by the patient themselves.*”*