Date: 19-11-2019

**CAP Project Documentation**

A picture containing animal, floor, arthropod

Description automatically generated

**Forms and their Fields**

* **Maintenance**

|  |  |  |
| --- | --- | --- |
| User | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Username | Text |  |
| Password | Text |  |
| Email | Text |  |

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| --- | --- | --- |
| User Type | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Type | List | Admin, doctor, patient  if user type doctor --> display his/her patients  if user type patient --> display his/her data  if user type admin --> display all patients |

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| --- | --- | --- |
| Cancer Type | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| ICD code | Text |  |
| Name | Text |  |

**Hint:** Each cancer type has list of histological cancer subtypes, list of molecular cancer subtypes, staging matrix, chemotherapy protocol.

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| --- | --- | --- |
| TNM:Tumor size, Lymph Node,Distant Metastasis | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Number | Number |  |
| From | Number |  |
| To | Number |  |
| Description | Text |  |

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| --- | --- | --- |
| Staging | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Number | Number |  |
| Remarks | Text |  |

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| Histological/Molecular Cancer Subtype | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Cancer type id | Number |  |
| Remarks | Text |  |

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| --- | --- | --- |
| Staging Matrix (TNM Staging) | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Stage | List | List of added stages |
| Tumor size (T) | List | List of added T(name with description) |
| Lymph node (N) | List | List of added lymph nodes N(name with description) |
| Distance metastasis(M) | List | List of added M(name with description) |

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| Initial Lab | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Remarks | Text |  |
| Is mandatory | Check box |  |

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| Surgery Type | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Remarks | Text |  |

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| Treatment Type | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Remarks | Text |  |

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| Imaging Type | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Remarks | Text |  |

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| --- | --- | --- |
| Special Case Type | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Remarks | Text |  |
| Has parts | Check box | If checked 🡪 add parts of this case |

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| Pathology Report Type | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Remarks | Text |  |

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| Chemotherapy Protocol | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Days | Number |  |
| Emetogenic risk | List | high, low, moderate, minimal |
| Growth factor | Check box |  |
| Antimicrobial | Check box |  |
| Premedication | List | List of added premedication according to emetogenic risk |

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| --- | --- | --- |
| Premedication | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Number | Number |  |
| Title | Text |  |
| Desciption | Text |  |
| Emetogenic Risk | List | high, low, moderate, minimal |

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| --- | --- | --- |
| Dose Unit | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |

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| Solution | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Description | Text |  |

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| Protocol Drug | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Protocol id | Number |  |
| Name | Text |  |
| Dose | Number |  |
| Dose unit | List | From added dose units |
| Route | List | IV, PO, SC, IM |
| Solution | List | From Added solutions |
| Solution amount | Number | Appear if route is IV |
| Final concentration | Text | Appear if route is IV |
| Duration | Number | Appear if route is IV, SC |
| Duration unit | List | -List 🡪 Minutes, hours, days, weeks  -Appear if route is IV, SC |
| Every | Number |  |
| Every unit | List | Minutes, hours, days, weeks |
| Days | Check boxes | from 1 to 30 to select days of this dose |
| Special administration notes |  | Appear if route is PO, IM |
| Time of administration |  | Appear if route is IM |
| Form | List | (Tablet, caps)  Appear if route is PO |
| Form Amount | Number | Appear if route is PO |

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| Drug Attachments | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Drug ID | Number |  |
| Attachment | File |  |

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| Protocol Lab Type and Subtype | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Remarks | Text |  |
| Protocol id | Number |  |
| Is mandatory | Check box |  |

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| Lab Subtype Condition | | |
| Field Name | **Field Type** | **Notes** |
| Operator | List | Greater than  Less than  Equal |
| Number | Number |  |
| Statement | List | And , or |
| Message | Text |  |

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| --- | --- | --- |
| Protocol Cycle | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Protocol ID | Number |  |
| Number | Number | Dynamic and can be modified |
| Every | Number |  |
| Every Unit | List | Day, Week |
| Notify After Cycle | Check box | If checked- after this cycle user will be notified |

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| --- | --- | --- |
| Cycle Drug | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Cycle ID | Number |  |
| Drug | List | From added protocol drugs |

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| Cycle Lab (labs required before each cycle) | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Cycle ID | Number |  |
| Lab | List | From added protocol lab type and subtype |

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| --- | --- | --- |
| Symptom(Side Effects) | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Grade | Number |  |
| Description | Text |  |
| Is Dose Limiting Toxicity | Check box |  |
| Recommendation | Text | Appear if Is Dose Limiting Toxicity is checked |
| Color | Color Picker |  |

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| Symptom Drugs | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Symptom ID | Number |  |
| Drug | List | From added drugs |

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| Treatment Monitoring | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Drug | List | From added drugs (each drug has list of symptoms) |
| Symptoms | List | From added symptom |

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| Treatment Response |
| List of the following:   1. CR 2. PR 3. SD 4. DP |

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| --- | --- | --- |
| Doctor | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Name | Text |  |
| Degree | Number |  |
| Contact Number | Tel |  |
| Username | Text |  |
| Password | Text |  |
| Email | Text |  |

* **Patient Data And Clinical Data**

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| --- | --- | --- |
| Patient Data | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| MRN (Medical Record Number) | Number |  |
| Name | Text |  |
| Birth date | Date |  |
| Age | Number | Calculated from birth date |
| Gender | Radio buttons | Male , Female |
| Residence | Text |  |
| National ID | Number |  |
| Contact number | Number |  |
| Occupation | Text |  |
| Payment method | List | Insurance  Sponsoring company direct payment |
| Sponsor company | Text | Appear if payment method is sponsoring company |
| First visit date | Date |  |
| Doctor | List | From added doctors |
| Username | Text |  |
| Password | Text |  |
| Email | Text |  |

|  |  |  |
| --- | --- | --- |
| Patient Clinical Data | | |
| Diagnosis | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Cancer type | List |  |
| Cancer side | List |  |
| Histological subtype cancer | List |  |
| Molecular subtype cancer | List | Male, Female |
| Tumor grade | Number |  |
| Tumor size(T) | List | From added T |
| Lymph node(N) | List | From added N |
| Distance metastasis(M) | List | From added M |
| Stage | Text | Get stage according to T, N, M selected from staging matrix of selected cancer type |
| Investigation | | |
| Patient Imaging | | |
| ID | Number |  |
| Image Type | List | From added imaging types |
| Image | File |  |
| Image Result As Text | Text |  |
| Image Result As pdf or image | File |  |
| Patient Initial Labs | | |
| ID | Number |  |
| Initial Lab Type | List | From added initial labs |
| Lab | File |  |
| Lab Result As Text | Text |  |
| Lab Result As pdf or image | File |  |
|  |  |  |
| Patient Pathology Report | | |
| ID | Number |  |
| Report type | List | From added pathology reports |
| Report | File |  |
| Patient Surgery | | |
| ID | Number |  |
| Surgery type | List | From added surgery types |
| Date | Date time |  |

|  |  |  |
| --- | --- | --- |
| Patient Chemical Survey Session | | |
| Field Name | **Field Type** | **Notes** |
| Date | Date time | is automatic (date time of now) and can be updated |
| Is special case | Check box |  |
| Special case | List | Appear if you check is special case field |
| Special case part | List | Appear if selected special case has parts |
| Weight | Number |  |
| Height | Number |  |
| Serum creatinine | Number |  |
| Body mass index (BMI) | Number | Calculated from below equations |
| Body surface area (BSA) | Number | Calculated from below equations |
| Adjust body weight | Number | Calculated from below equations |
| Lean body weight (LBW) | Number | Calculated from below equations |
| CRCL | Number | Calculated from below equations |
| Treatment plan | List | From added treatment types |
| Protocol | List | From added protocols |
| Cycle number | List | -From added cycles of selected protocol  And its change automatically according to the date of start chemo survey , date of now and days of cycle  -If notify after cycle checked, link will appear to assessment |
| Day number | Number | It’s calculated automatically according to cycle start date and date of now |
| Drugs | List | Get drugs of today of selected protocol cycle |
| Dose percentage | Number | For each drug to change percentage of drug dose that patient will take |
| Labs | List | Get labs that required for selected cycle |
| Is Performed | Check box | For each lab to check it if lab was performed |

**Equations:**

BMI = Total body weight (TBW) / (Height in meter ^ 2.00)

BSA = Sqrt ((height \* weight) / 3600)

Factor = 45.4 (if female) 49.9 (if male)

IBW = Factor + (0.89 \* (height - 152.4))

Adjust Body Weight = IBW + (0.4 \* (TBW - IBW))

A = 1.07 (if female) 1.1 (if male)

B = 0.0148 (if female) 0.0128 (if male)

LBW = (A \* TBW) - (B \* BMI \* TBW)

CRCL = ((140 - Patient Age) \* LBW) / (Serum Creatinine \* 72)

* Print out sheet (Arabic version)

|  |  |  |
| --- | --- | --- |
| Patient Follow Up (Patient Symptoms) | | |
| Field Name | **Field Type** | **Notes** |
| ID | Number |  |
| Patient ID | Number |  |
| Symptom | List | From added symptoms or add new symptom only (name , grade)  When select symptom, drugs of this symptom will appear |
| Symptom Duration Amount | Number |  |
| Symptom Duration Unit | List | Hour, day, week, month |
| Date | Date time | Date of today |

* print out sheet data (Chemotherapy sheet)

|  |
| --- |
| Patient Data |
| Name |
| ID |
| Date |
| Diagnosis |
| Cancer type |
| Cancer side |
| Histological cancer subtype |
| Molecular cancer subtype |
| Grade |
| Stage |
| Aim of treatment |
| Protocol of chemo survey Data |
| Protocol |
| Emetogenic risk |
| Is growth factor |
| Is antimicrobial |
| Premedication |
| Chemo survey data |
| Cycle number |
| Day |
| Body surface area |
| Chemo survey labs |
| Name |
| Chemo survey drugs (arrange according route) |
| Name |
| Route |
| Dose / Dose unit |
| Solution / Solution amount |
| Final concentration |
| Duration / Duration unit |
| Every / Every unit |
| Special administration notes |
| Time of administration |
| Protocol Summary (will added by user) |
| Special dose modification (will added by user) |

* Print out sheet (Arabic version)

A screenshot of a cell phone

Description automatically generated

* Print out sheet (English version)

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Description automatically generated

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Description automatically generated

* Discharge Note Data (for chemo survey session)

|  |
| --- |
| Patient Data |
| Name |
| MRN |
| Date |
| Diagnosis |
| Cancer type |
| Cancer side |
| Histological cancer subtype |
| Molecular cancer subtype |
| Grade |
| Stage |
| Aim of treatment |
| Protocol of chemo survey Data |
| Name |
| Chemo survey data |
| Next cycle number |
| Next cycle date(calculated from first chemo for patient) |
| Chemo survey labs |
| Display all labs for next cycle in two lists , list 1 for lab and list 2 for lab details  Add date field and button (add to table) when click on it add on table these data  Next to each list put add new button to add new lab or lab details and save it as lab for next cycle (add new from existing labs or add new lab)  save list of added labs in table Chemo Lab (lab details id, chemo id, date) |
| Chemo survey drugs |
| Display all drugs for next cycle in list with add to table button when click on it, add in table drug data  Next to list put add new button to add new drug (add new from existing drugs or add new drug)  save list of added drugs in table Patient Drug (kimo id, drug id, date) |

* Discharge Note

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Description automatically generated