HIV CASE-BASED SURVEILLANCE

Screenshots from openMRS case reporting module

NOVEMBER 8, 2016
CENTERS FOR DISEASE CONTROL AND PREVENTION

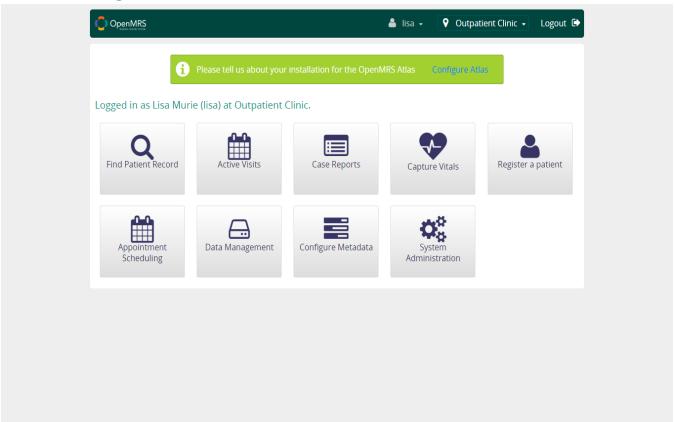
Use case: Test patient John M Doe

Below is a list of all triggers defined for HIV case based surveillance along the care cascade; in the case reporting module in openMRS.

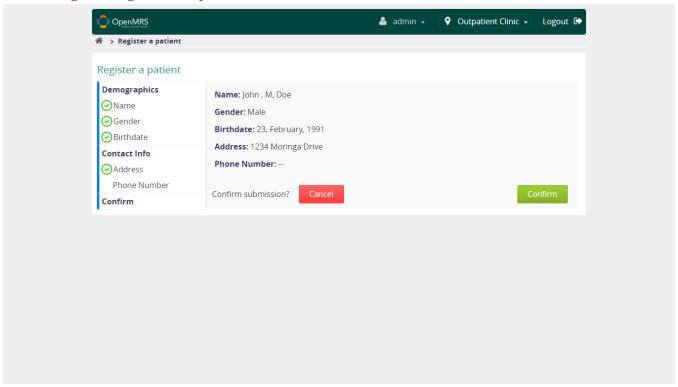
- 1. New HIV Case
- 2. New HIV Disease
- 3. New HIV Treatment
- 4. ART Therapy changed to second line
- 5. HIV Treatment stopped
- 6. HIV treatment failure
- 7. Patient died
- 8. HIV not virally suppressed
- 9. HIV patient not tested
- 10. HIV patient lost to follow up

NOTE: For the last three triggers screenshots have not been included. I wasn't able to replicate the scenarios that would fire the *HIV patient not tested* trigger (viral load) and *HIV patient lost to follow up* based on how the queries were defined in the case reporting module. For the *HIV not virally suppressed* trigger. There wasn't any queries included in the module.

1. Home Page

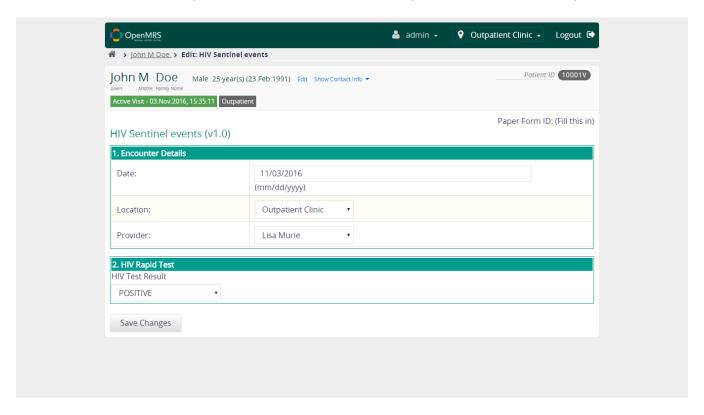


2. Registering the test patient

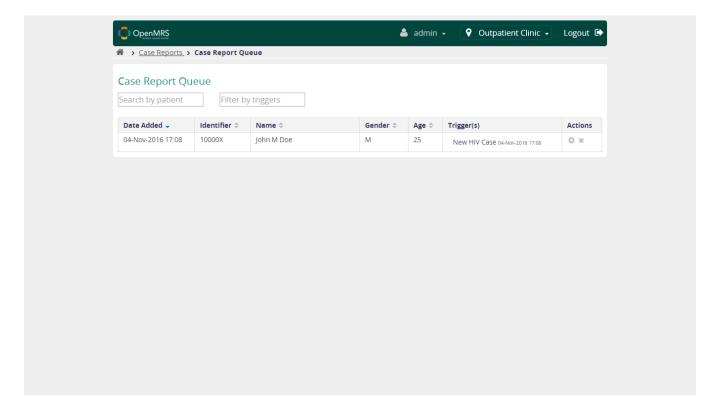


3. New HIV Case

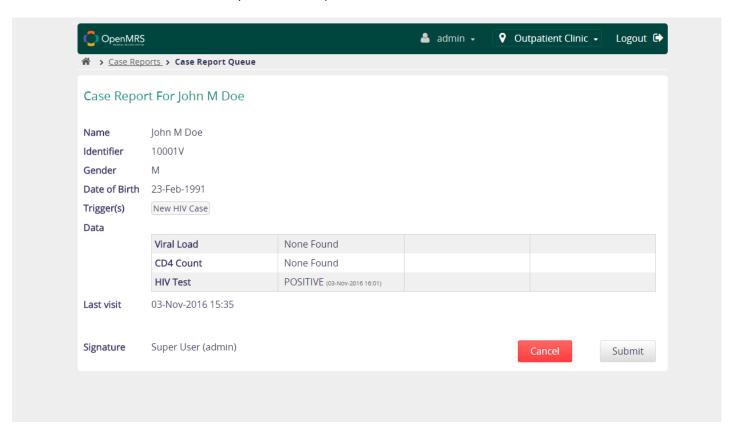
Enter the observation for a reportable sentinel event. In this case, patient HIV test results are positive.



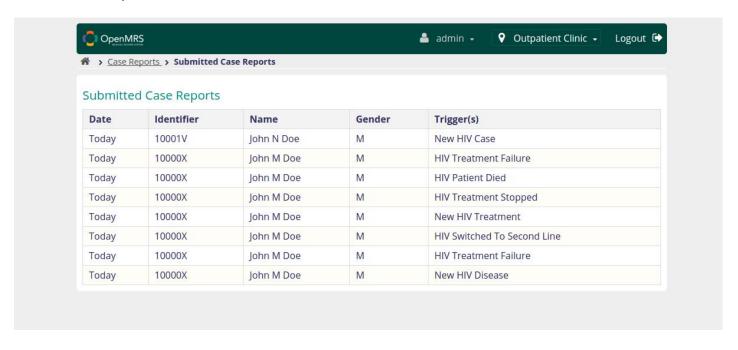
New HIV Case trigger is fired by the observation and entered in the case report queue



One can either submit or decline the queued case report



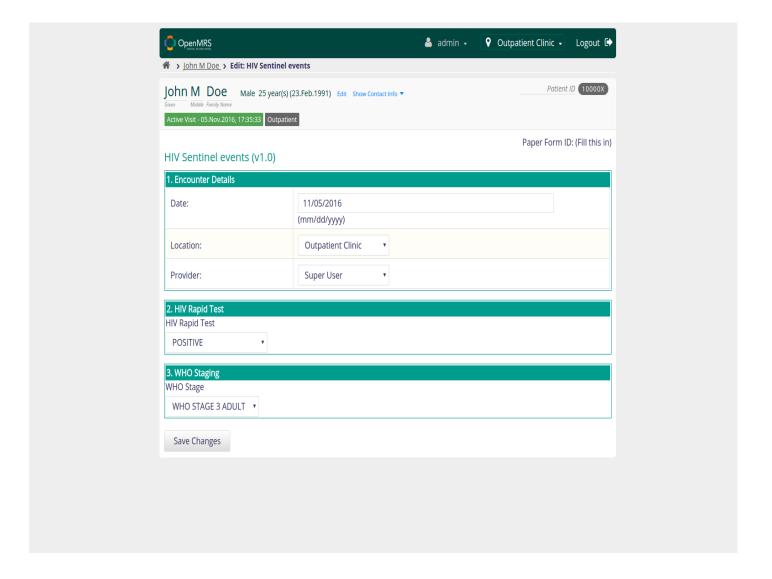
Submitted case reports



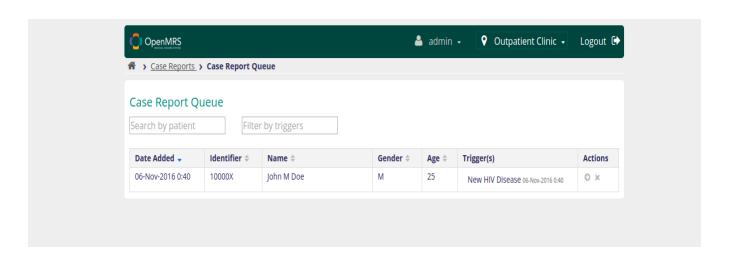
Case report as a FHIR Document

4. New HIV Disease

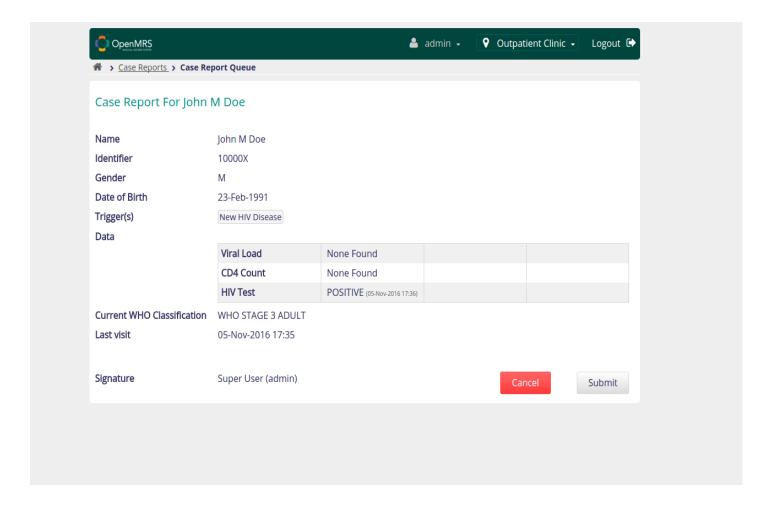
Enter details for WHO staging based on HIV disease diagnosed



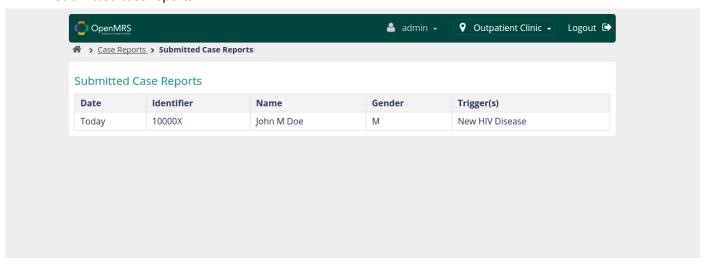
Case report queue



Review and submit the reports

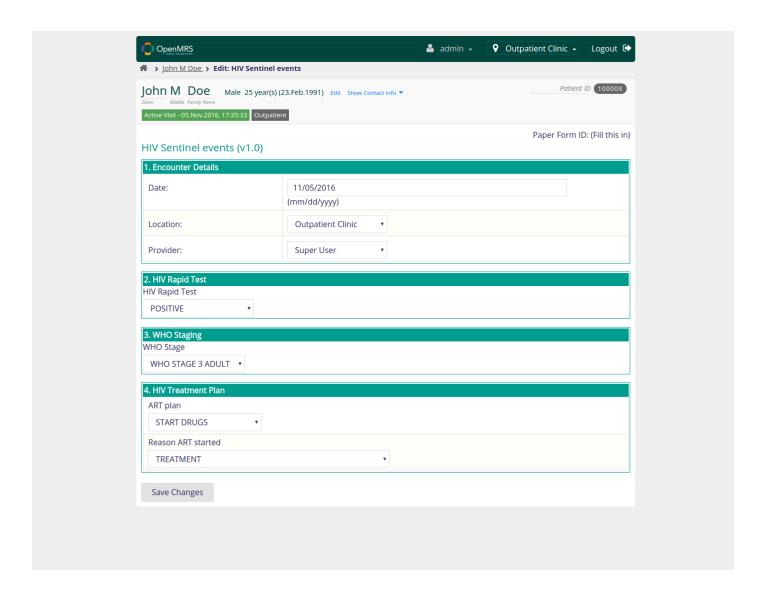


Submitted case reports

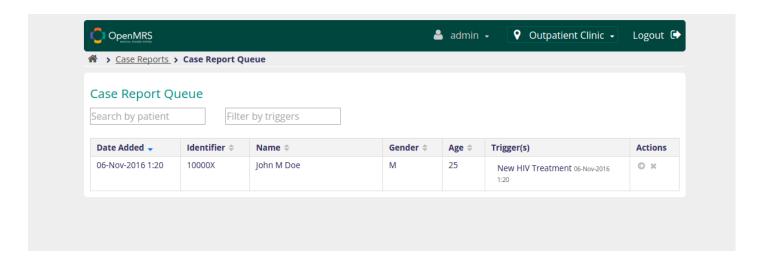


```
OpenMRS
                                                                                             🚢 admin 🗸
                                                                                                                  ♀ Outpatient Clinic → Logout ♠
Case Reports > Submitted Case Reports
Submitted Case Reports
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                         "birthDate":"1991-02-23",
"deceasedBoolean":false
                  },
{
                         "resourceType":"DetectedIssue",
"id":"b4ba4f13-f1c5-4c66-be0d-7b412bbda438",
"detail":"New HIV Disease",
"date":"2016-11-06T00:40:13-04:00",
      "reference": "http://localhost: 8085/openmrs/ws/reporting/v1/reportingrest/cohortDefinition/62c38cf7-99e0-418b-80a0-df628381ce92"
            ],
"identifier":{
    "system":"urn:ietf:rfc:3986",
    "value":"1cle3896-31cd-4307-9942-48e1cddc6d89"
            },
"date":"2016-11-06T00:40:13-04:00",
"type":{
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                        {
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"code":"55751-2"
                  ]
             },
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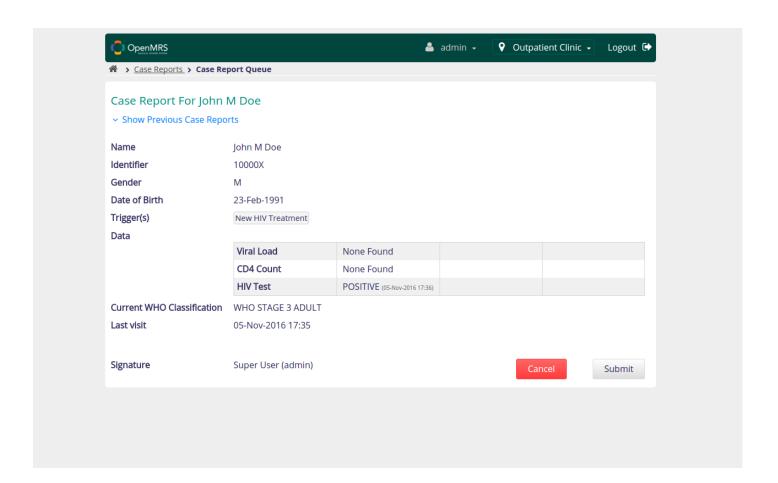
5. New HIV Treatment



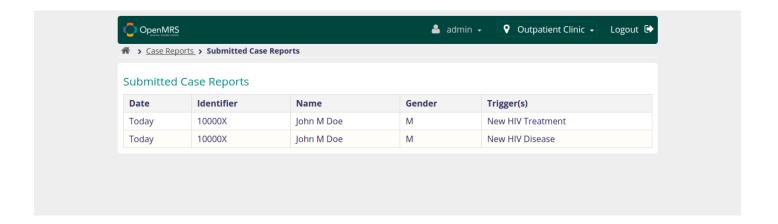
Case reporting queue



Review and Submit report



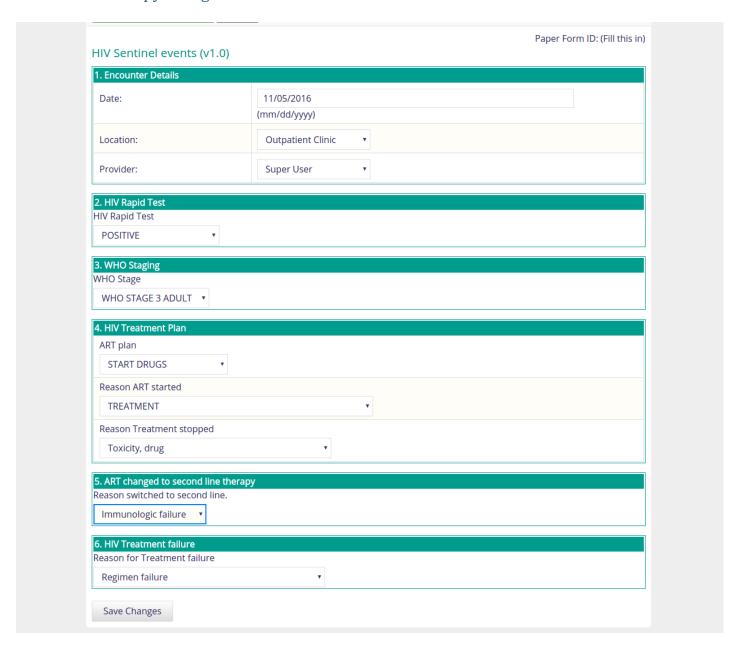
Submitted case reports



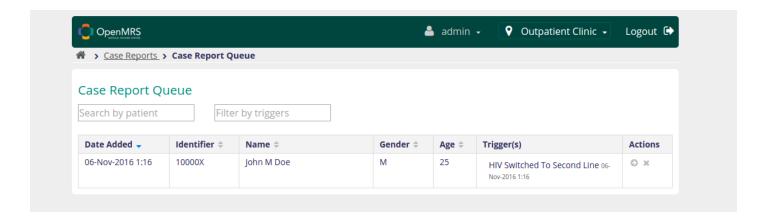
Case report as FHIR Document

```
♥ Outpatient Clinic ▼
                                                                                                                                          Logout 🕩
                                           You have gone full screen.
                                                                                 Exit full screen (F11)
   > Case Reports > Submitted Case F
Submitted Case Reports
                                         {
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"code":"_ObservationIssueTriggerCodedObservationType"
                             }
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    "start":"2016-11-06T01:20:43-05:00",
    "end":"2016-11-06T01:20:43-05:00"
                       },
"detail":[
                             {
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"display":"New HIV Treatment"
                 }
           ],
"section":[
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"code":{
    "coding":[
                                          "system":"http://openconceptlab.com/orgs/CIEL/", "code":"1040"
```

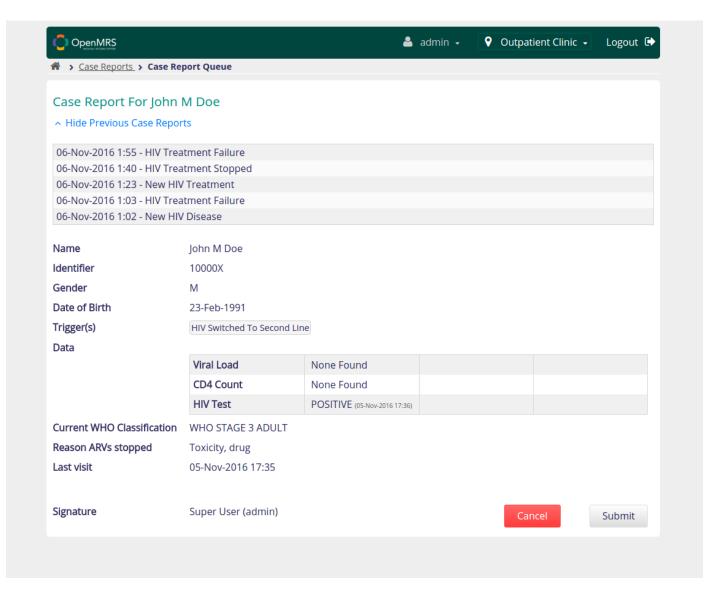
6. ART Therapy changed to second line



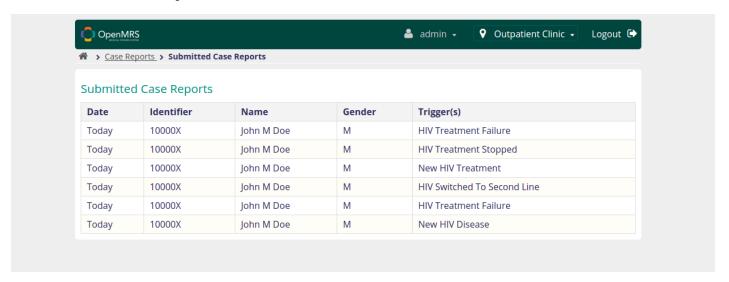
Case report queue



Review and submit case report



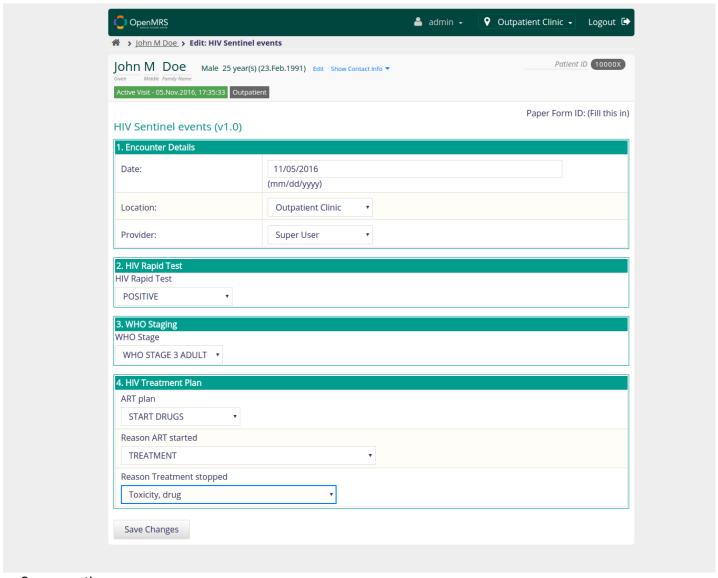
Submitted case reports



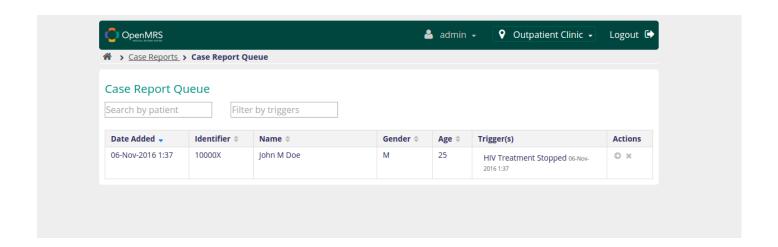
Case report as FHIR Document

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📤 admin 🗸
                                                                                      ♀ Outpatient Clinic -
                                                                                                              Logout 🕩
   > Case Reports > Submitted Case Reports
Submitted Case Reports
                                      "code":"_ObservationIssueTriggerCodedObservationType"
                       }
                   "period":{
    "start":"2016-11-06T01:16:13-05:00",
                       "end":"2016-11-06T01:16:13-05:00"
                  },
"detail":[
                       {
                            "reference":"#9d1800bd-a933-445d-99ba-d3273bd95dac",
"display":"HIV Switched To Second Line"
              }
         ],
"section":[
                  "title": "HIV Test, Qualitative test result(s)",
                   "code":{
                        "coding":[
                                 "system":"http://openconceptlab.com/orgs/CIEL/",
                                 "code":"1040"
                  },
```

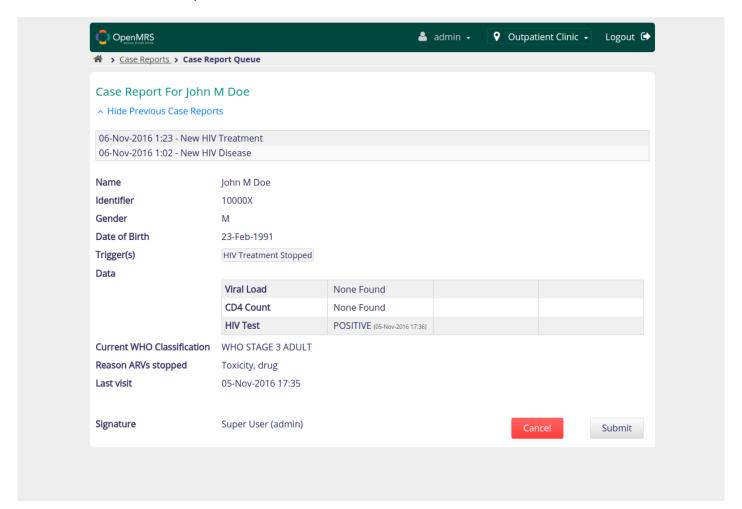
7. HIV Treatment stopped



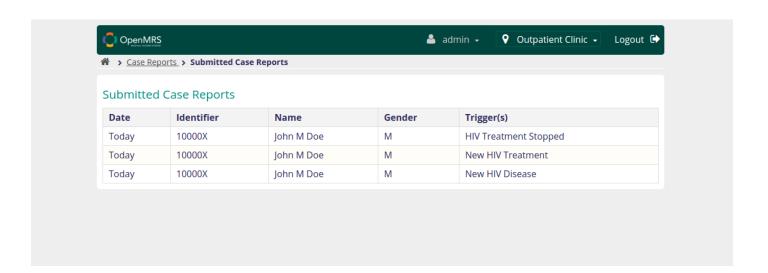
Case reporting queue



Review and submit case report



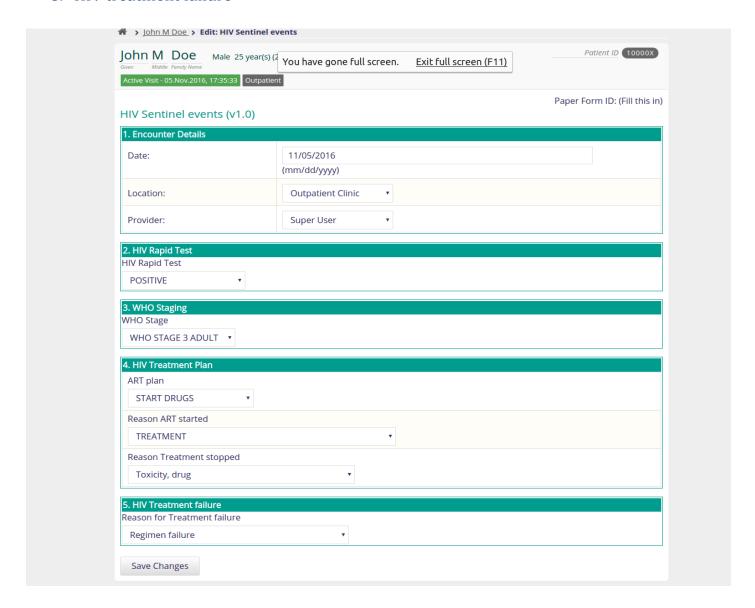
Submitted reports



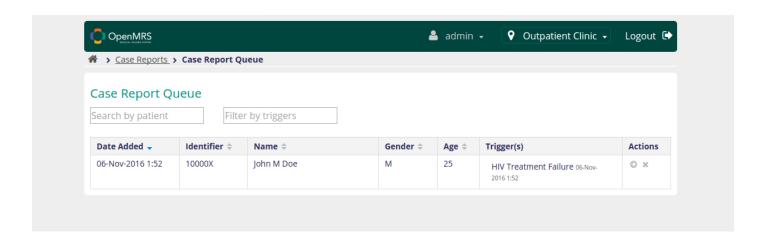
Case report as FHIR document

```
OpenMRS
                                                                            🍰 admin →
                                                                                                                       Logout 🕩
Case Reports > Submitted Case Reports
Submitted Case Reports
                              ]
                         }
                    ],
"period":{
    "start":"2016-11-06T01:37:13-05:00",
    "end":"2016-11-06T01:37:13-05:00"
                    },
"detail":[
                         {
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"display":"HIV Treatment Stopped"
                         }
                    ]
               }
          ],
"section":[
               {
                    "title":"HIV Test, Qualitative test result(s)",
                    "code":{
                          "coding":[
                             {
                                   "system":"http://openconceptlab.com/orgs/CIEL/", "code":"1040"
                         ]
                    },
"text":{
```

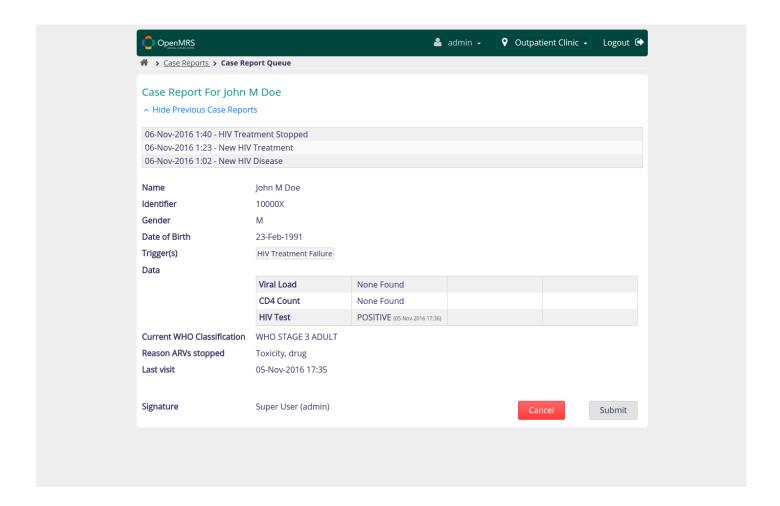
8. HIV treatment failure



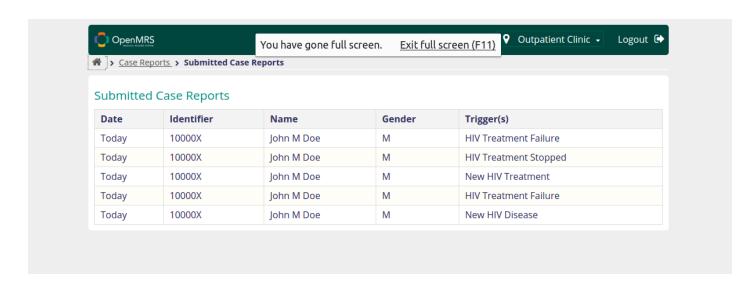
Case report queue



Review and submit or dismiss case report



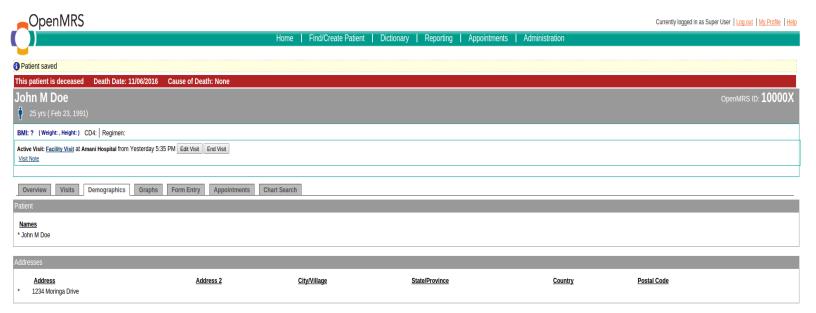
Submitted case reports



Case report as FHIR document

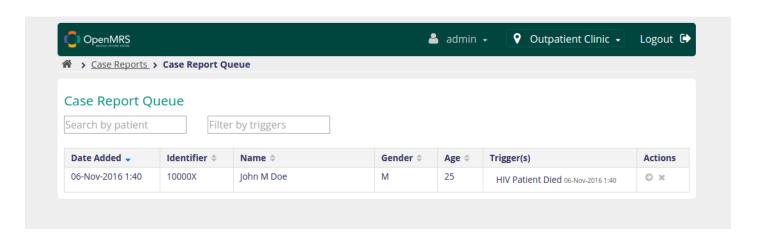
```
♀ Outpatient Clinic →
 OpenMRS
                                                                 🏜 admin →
★ > Case Reports > Submitted Case Reports
Submitted Case Reports
                      "start":"2016-11-06T01:52:43-05:00",
"end":"2016-11-06T01:52:43-05:00"
                 },
"detail":[
                      {
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                  ]
             }
        ],
"section":[
             {
                 "title":"HIV Test, Qualitative test result(s)",
"code":{
    "coding":[
                          {
                               "system":"http://openconceptlab.com/orgs/CIEL/", "code":"1040"
                      ]
                 },
"text":{
```

9. Patient died

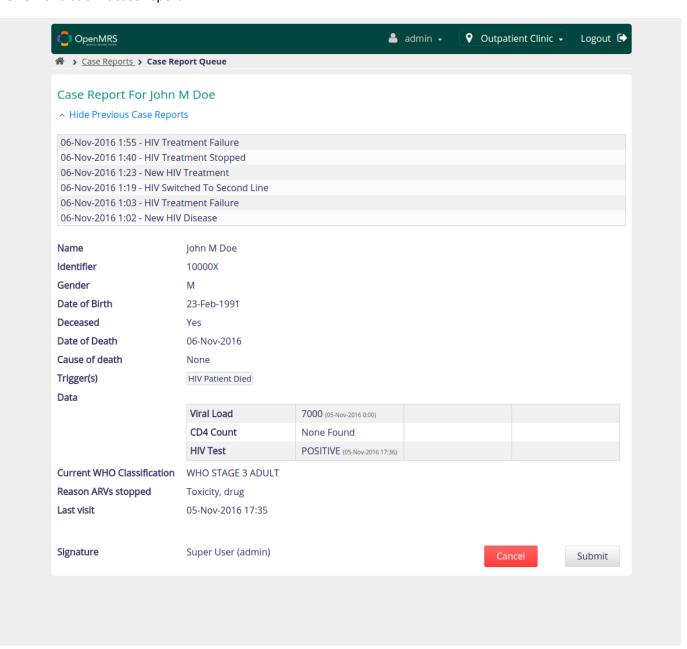


Edit this Patient | Edit this Patient (Short Form)

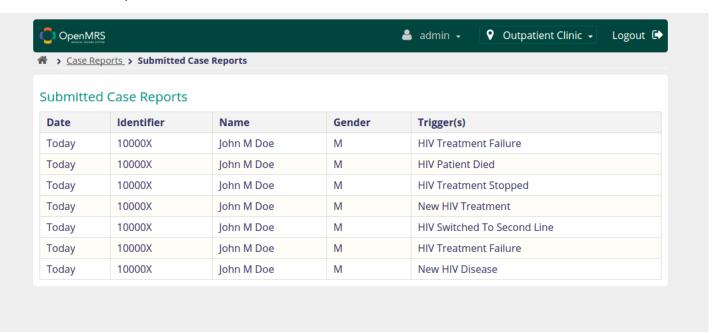
case report queue



Review and submit case report



Submitted case reports



case report as FHIR Document

```
🚢 admin 🗸
                                                                     ♀ Outpatient Clinic →
                                                                                         Logout 🕩
  > <u>Case Reports</u> > Submitted Case Reports
Submitted Case Reports
               ],
"period":{
                   "start":"2016-11-06T01:40:42-05:00",
"end":"2016-11-06T01:40:42-05:00"
              },
"detail":[
                   {
                       "reference": \#d78d38a0-442d-4fde-a5a9-7f125a59f3e6",
                       "display": "HIV Patient Died"
                   }
           }
        "section":[
               "title":"Viral Load(s)",
               "code":{
                   "coding":[
                      {
                           "system": "http://openconceptlab.com/orgs/CIEL/",
                           "code": "856"
```