

CBC+CRP(C Reactive Protein) measurement at ER

Night-time Emergency Room Okazaki City Medical Association

Elderly people may develop serious infectious diseases such as pneumonia without evidence of fever. So we perform CBC and CRP testing.

Instrument: Hematology analyzer 3Diff + CRP
Parameters: CBC and CRP
Number of daily measurements: 1 to 5



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Q.1 What healthcare professionals are involved in the ER?

A.1 About 130 doctors including physicians, surgeons, orthopedics and pediatricians who practice in Okazaki City take turns to staff the ER once a month or once in three months.

Q.2 How many patients visit the ER daily?

A.2 Approximately 40 patients during the summer season, 20 (50%) are pediatric, 10 (25%) internal medicine and 10 (25%) surgical. During the winter there is increased testing for CBC and CRP.

Q.3 What are their symptoms?

A.3 About 70 % of patients have infectious diseases such as upper respiratory inflammation with sudden or lasting fever for several days. Another 20% are Gastroenteric cold with episodes of vomiting caused by Norovirus. The 30% of patients are children who couldn't visit clinic during the regular hours because both of their parents are working.

Q.4 When do you test for CBC and CRP?

A.4 When an elderly patient appears lethargic and is emotionally depressed. From CBC and CRP values I have found a patient who developed pneumonia without a high fever. For children under 3-year-old with fever, if both CBC and CRP values are high, we drip-infuse antibiotics or transport patient for immediate hospitalization.

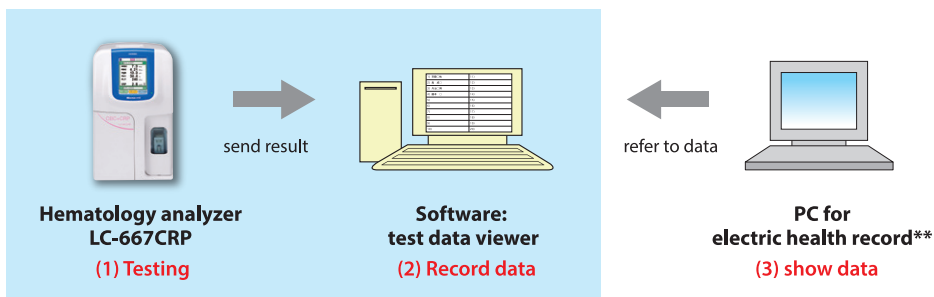
“ CBC and CRP measurement data are sent to Test Result Data Viewer Software*¹, as well as linked with Electric Medical Record (EMR). ”

Q.5 How are test results reported?

A.5 CBC and CRP results are transmitted to Test Result Data Viewer Software*¹, as well as linked with “EMR” . The printed results are given to the patients with an explanation. The result will also be sent to their home doctors on the following day for reference.

*1 made by Fukuda Denshi

Data transmission



**Test result data SW needs to be installed

Q.6 Who measures CBC and CRP?

A.6 Nurses perform the tests, 5 tests of them work during the week and 6 tests on weekends. Current instruments are so user-friendly that anyone can handle reagent replacement, start-up and shutdown operations.



Microsemi CRP instrument

Q.7 How do you obtain the blood sample?

A.7 Normally, we use a vacuum blood collection tube with EDTA. With small children, we take samples from the dorsal hand vein using a needle or from a heel using a micro-liner*². If nurses find it difficult, a doctor will collect the blood sample.

*2 manufactured by Becton and Dickinson Co., Ltd