| Biomarkers    | specifity  | sensitivity   | start  | peak              | end   |   |
|---------------|--|---|--------|-------------------|---|---|
| Myoglobin     | Not specific   | More sensitive<br>than CK                               | 1-4 hr | 6-9 hr            | 18-24 hr  | If normal after<br>pain by 8h, MI<br>can be ruled<br>out                        |
| Total-CK      | Not specific   |   |        |                   |   | Used on chest<br>pain patients<br>who are<br>admitted later<br>than<br>10-12 hr |
| CK-MB         | High specificity<br>(more than<br>total-CK, less<br>than troponin  ) | Sensitive (was the<br>gold marker before<br>troponin  ) | 4-6 hr | 12-24<br>hr       | 2-3 days  | Useful for early<br>diagnosis & re-<br>infarction<br>diagnosis                  |
| Troponin<br>T | Not specific   | More sensitive<br>than<br>CK-MB                         | 6 hr   | 72 hr<br>(3 days) | 7-10 days<br>(can't tell<br>infarct from<br>re-infarct) | May be elevated<br>in patients with<br>chronic renal<br>failure                 |
|               |  |   |        |                   |   |   |

| Troponin | Specific     | More<br>sensitive than<br>CK-MB | 4-6 hr                                      | 14-24<br>hr | 3-5 days<br>(disappea<br>rs from<br>blood<br>after a<br>week) | Useful for<br>diagnosis of<br>delayed<br>admission<br>cases                            |
|----------|--------------|---------------------------------|---|-------------|---|--|
| LDH      | Not specific |                                 | Increase later<br>than<br>CK-MB             | 48 hr       | 5-6 days  | Useful when a patient with chest pain presents late                                    |
| H-FABP   |              |                                 | 30 min (extrem<br>ely early)                | 6-8 hr      | 24 hr   | Used to<br>quickly rule<br>out MI  |
| GPBB     | Specific     | Very<br>sensitive[<br>superior] | First hour 1-3 hr<br>of MI after<br>ischemi |             |   | Catch the MI<br>before it<br>happens (in<br>ischemic<br>phase)                         |
| Copeptin |              |                                 | Within minutes<br>(15 min)                  |             |   | Adding<br>copeptin to<br>CTNI can rule<br>out<br>AMI                                   |
| IMA      | Not specific | Sensitive for<br>ischemia       | Within few<br>minutes                       | 2-4 hr      | 6 hr  | Negative test (along with negative troponin and ECG) has 99% negative predictive value |