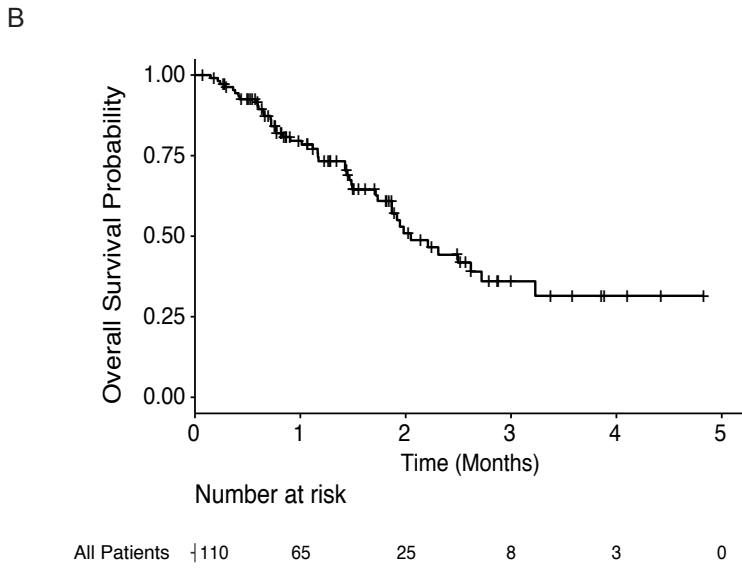
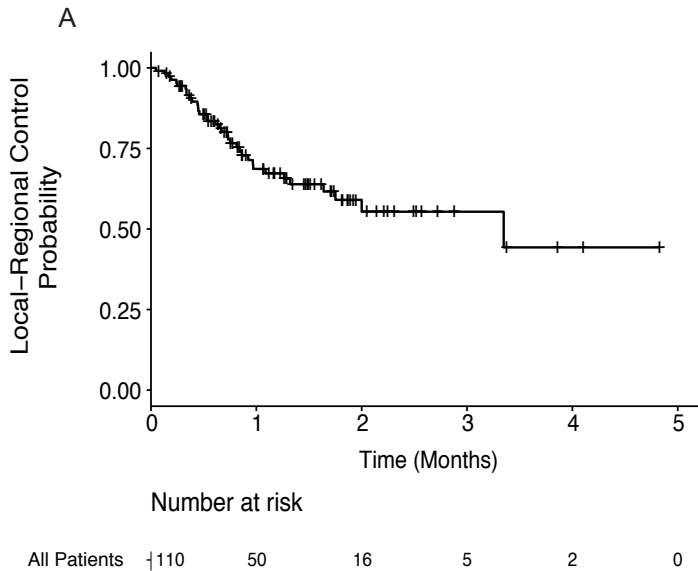
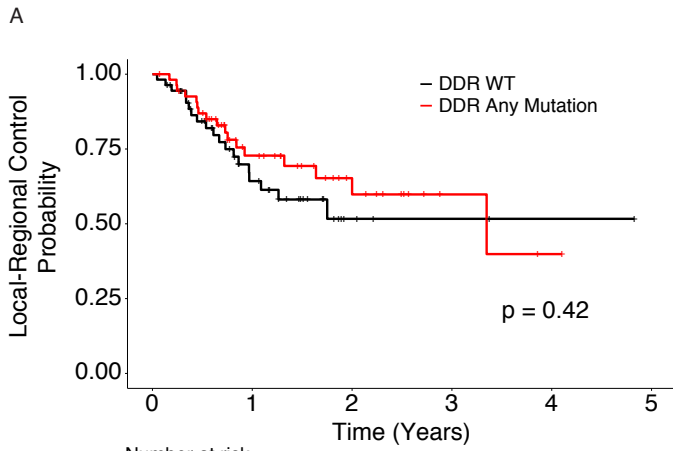


Supplemental Table 1. 38 DDR genes from MSK-IMPACT. 34 genes were previously described in the MSK-IMPACT-346 panel and additional 4 genes (in bold) were added from the latest MSK-IMPACT-468 panel.

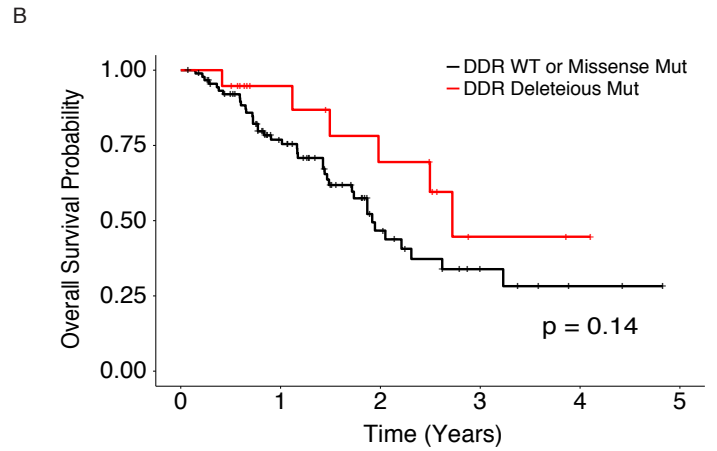
| <b>MMR</b>  | <b>NER</b> | <b>HR</b>    | <b>FA</b>    | <b>Checkpoint</b> | <b>Others</b> |
|-------------|------------|--------------|--------------|-------------------|---------------|
| MLH1        | ERCC2      | BRCA1        | BRCA2        | ATM               | POLE          |
| MSH2        | ERCC3      | MRE11A       | BRIP1        | ATR               | MUTYH         |
| <b>MSH3</b> | ERCC4      | NBN          | FANCA        | CHEK1             | PARP1         |
| MSH6        | ERCC5      | <b>RAD21</b> | FANCC        | CHEK2             | <b>RECQL</b>  |
| PMS1        |            | RAD50        | PALB2        | MDC1              | RECQL4        |
| PMS2        |            | RAD51        | RAD51C       |                   |               |
|             |            | RAD51B       | BLM          |                   |               |
|             |            | RAD51D       | <b>XRCC2</b> |                   |               |
|             |            | RAD52        |              |                   |               |
|             |            | RAD54L       |              |                   |               |

Supplemental Figure 1





|             | Number at risk |    |    |   |   |   |
|-------------|----------------|----|----|---|---|---|
|             | 0              | 1  | 2  | 3 | 4 | 5 |
| DDR WT      | 55             | 23 | 4  | 2 | 1 | 0 |
| DDR Any Mut | 55             | 27 | 12 | 3 | 1 | 0 |



|                        | Number at risk |    |    |   |   |   |
|------------------------|----------------|----|----|---|---|---|
|                        | 0              | 1  | 2  | 3 | 4 | 5 |
| DDR WT or Missense Mut | 91             | 53 | 17 | 6 | 2 | 0 |
| DDR Deleterious Mut    | 19             | 12 | 8  | 2 | 1 | 0 |

