Table 1a Univariate analysis (1114 patients with RMS at head/neck)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **N** | **(%)** | **5yrs OS**  **(%)** | **95%CI** | **p value** | **N** | **(%)** | **5yrs DSS**  **(%)** | **95% CI** | **p value** |
| **Age [years]**  0  1  2  3  4-9  10-18  ≥19 | 35  36  51  68  307  231  386 | 3%  3%  5%  6%  28%  21%  35% | 72.5%  73.5%  69.1%  74.6%  81.8%  64.9%  29.2% | ±15.29  ±15.09  ±13.13  ±10.98  ±4.51  ±6.47  ±5.10 | **<.001** | 35  35  50  67  307  229  381 | 3%  3%  5%  6%  28%  21%  35% | 72.8%  75.4%  70.5%  79%  83.3%  66.9%  33.2% | ±15.29  ±14.9  ±13.13  ±10.19  ±4.51  ±6.47  ±5.49 | **<.001** |
| **Age [years]**  0-18  19-44  45-64  65-84  ≥85 | 728  228  101  47  10 | 65%  20%  9%  4%  1% | 73.9%  30.7%  27.8%  25.6%  25% | ±3.33  ±8.82  ±9.21  ±13.52  ±29.01 | **<.001** | 723  224  100  47  10 | 65%  20%  9%  4%  1% | 75.8%  32.3%  31.3%  40%  59.1% | ±3.33  ±7.06  ±10  ±15.88  ±38.81 | **<.001** |
| **Marital Status**  **≤18 years**  Single (never married)  Divorced  Married  Separated  Widowed  Unmarried or domestic partner  unknown  **>18 years**  Single (never married)  Divorced  Married  Separated  Widowed  Unmarried or domestic partner  unknown | 728  725  3  386  158  17  170  4  19  1  17 | 100%  100%  0%  100%  41%  4%  46%  1%  5%  0%  4% | 73.9%  50%  33.7%  39.3%  26.1%  50%  10.5%  100%\*  \*follow up end at 1.33 years | ±3.33  ±69.38  ±8.23  ±25.68  ±7.45  ±49  ±13.72  ±0 | .460  **.020** | 723  720  3  381  157  17  167  4  18  1  17 | 100%  100%  0%  100%  41%  4%  44%  1%  5%  0%  4% | 75.8%  50%  36.7%  41.5%  29.7%  50%  25.4%  100%\*  \*follow up end at 1.33 years | ±3.33  ±69.38  ±8.62  ±26.85  ±8.04  ±49  ±21.36  ±0 | .404  0.168 |
| **Race**  White  Black  Other (American Indian/AK Native, Asian/Pacific Islander)  Unknown | 833  172  104  5 | 75%  15%  9%  0% | 60.9%  52.7%  54.8% | ±3.53  ±8.04  ±10.58 | .142 | 824  172  103  5 | 75%  16%  9%  0% | 64%  56.3%  57.2% | ±3.53  ±8.23  ±20.58 | .200 |
| **Ethnicity**  Hispanic  Non-hispanic | 281  833 | 25%  75% | 58.5%  59.3% | ±6.27  ±3.53 | .966 | 275  829 | 25%  75% | 62.8%  62% | ±6.27  ± 3.53 | .974 |
| **Type of reporting source**  Hospital inpatient/outpatient or clinic  Laboratory only (hospital or private)  Other hospital outpatient unit or surgery center (2006+)  Physician’s office/private medical practitioner (LMD)  Radiation treatment or medical oncology center (2006+) | 1098  7  3  4  2 | 99%  1%  0%  0%  0% | 59%  55.7%  33.3%\*  \*last follow up at .3.83 years  37.5%  100%\*  \*last follow up at 4.25 years | ±3.14  ±25.87  ±53.31  ±56.06  ±0 | .418 | 1089  7  2  4  2 | 99%  1%  0%  0%  0% | 62.1%  85.1 %  50%\*  \*last follow up at .3.83 years  37.5%  100%\*  \*last follow up at 4.25 years | ±3.14  ±25.87  ±69.38  ±56.06  ±0 | .563 |
| **Chemotherapy**  yes  no/unknown | 1024  90 | 92%  8% | 60.5%  43.4% | ± 3.14  ± 10.78 | **<.001** | 1017  87 | 92%  8% | 63.1%  53.6% | ± 3.24  ± 11.56 | **<.001** |
| **Sequence Systemic Therapy and Surgery**  Intraoperative systemic therapy with other therapie administred before and/or after surg  No systemic therapy and/or surgical procedures  Sequence unknown  Surgery both before and after systemic therapy  Systemic therapy after surgery  Systemic therapy before surgery  Blank/ not reported  Systemic therapy both before and after surgery | 1  410  1  1  303  22  360  16 | 0%  37%  0%  0%  27%  2%  32%  1% | 0%\*  \*last follow up at 0.92 years  51.9%  0%\* \*last follow up at 2.58 years  100%\*  \*last follow up at 1.83 years  68.2%  54.5%  61%  20.2% | ±0  ±5.49  ±5.68  ±21.95  ±5.1  ±24.5 | **<.001** | 1  405  1  1  300  21  359  16 | 0%  37%  0%  0%  27%  2%  33%  1% | 0%\*  \*last follow up at 0.92 years  57.3%  0%\* \*last follow up at 2.58 years  100%\*  \*last follow up at 1.83 years  70.7%  57.4%  62.4%  20.2% | ±0  ±5.49  ±5.49  ±22.54  ±5.1  ±24.5 | **<.001** |
| **Radiation**  Yes  No/unk | 873  241 | 78%  22% | 60.9%  52.6% | ±3.53  ±6.66 | **<.001** | 866  238 | 78%  22% | 63.5%  57.7% | ±3.53  ±6.86 | **.006** |
| **Radiation Record**  Beam radiation  Combination of beam with implants or isotopes  None/unknown\*  Radiation NOS (method or source not specified)  Radioactive implants (includes brachytherapy) (1988+)  Radioisotopes (1988+) | 849  5  241\*  16  2  1  \* There of 9 patients refused radiotherapy and for 15 patients radiation was recommended but unknown if administered. | 76%  0%  22%  1%  0%  0% | 60.5%  100%  52.6%  62.5%  100%  100% | ±3.53  ±0  ±6.66  ±23.72  ±0  ±0 | **.002** | 842  5  238\*  16  2  1  \* There of 9 patients refused radiotherapy and for 15 patients radiation was recommended but unknown if administered. | 76%  0%  22%  1%  0%  0% | 63%  100%  57.7%  67.3%  100%  100% | ±3.53  ±0  ±6.86  ±23.52  ±0  ±0 | .052 |
| **Sequence of radiation and surgery**  No radiation and/or cancer-directed surgery  Radiation after surgery  Radiation before and after surgery  Radiation before surgery  Sequence unknown, but both were given | 700  393  5  15  1 | 63%  35%  0%  1%  0% | 56.3%  65.5%  0%  45%  100% | ±3.92  ±4.9  ±0  ±25.87  ±0 | **<.001** | 695  388  5  15  1 | 63%  35%  0%  1%  0% | 59.8%  68.2%  0%  45%  100% | ±3.92  ±4.9  ±0  ±25.87  ±0 | **<.001** |
| **Reason no cancer-directed surgery**  Not recommended  Not recommended/contraindicated due to other conditions/autopsy only (1973-2002)  Not performed, patient died prior to recommended surgery  Recommended but not performed (unknown reason)  Recommended, unknown if performed  Surgery performed  unknown | 582  14  3  21  5  485  4 | 52%  1%  0%  2%  0%  44%  0% | 53.7%  47.1%  33.3%\*  55.1%  53.3%  66.3%  50%  \*last follow up at 0.8 years | ±4.32  ±27.05  ±53.31  ±21.76  ±48.61  ±4.51  ±49 | **<.001** | 578  14  3  21  5  479  4 | 52%  1%  0%  2%  0%  43%  0% | 56.6%  51.4%  66.7%\*  55.1%  53.3%  69.7%  50%  \*last follow up at 0.8 years | ±4.31  ±28.22  ±53.31  ±21.76  ±48.61  ±4.31  ±49 | **<.001** |
| **Surgery** **Lymph Nodes**  1 to 3 regional lymph nodes removed  4 or more regional lymph nodes removed  Biopsy or aspiration  neck dissection NOS  neck dissection, selective, limited: nodal dampling  no regional lymph nodes removed  number of regional lymph nodes removed unknown  regional lymph nodes removed, NOS  Unknown/not applicated | 51  36  47  1  1  916  12  12  38 | 5%  3%  4%  0%  0%  82%  1%  1%  3% | 60%  28.8%  37.1%  100%  100%  61.7%  74.1%  66.7%  34% | ±13.52  ±21.76  ±14.70  ±0  ±0  ±3.33  ±25.28  ±26.66  ±15.88 | **<.001** | 51  34  46  1  1  910  12  12  37 | 5%  3%  4%  0%  0%  82%  1%  1%  3% | 60%  30.9%  40.1%  100%  100%  64.9%  83.3%  66.7%  37% | ±13.52  ±23.12  ±15.48  ±0  ±0  ±3.33  ±21.17  ±26.66  ±16.86 | **<.001** |
| **Surgery Lymph Nodes**  Biopsy or aspiration  No  Unknown/Not applicated  Yes | 47  916  38  113 | 4%  82%  3%  10% | 37.1%  61.7%  34%  56.4% | ±14.7  ±3.33  ±15.88  ±9.60 | **<.001** | 46  910  37  111 | 4%  82%  3%  10% | 40.1%  64.9%  37%  58.5% | ±15.48  ±3.33  ±16.86  ±9.60 | **<.001** |