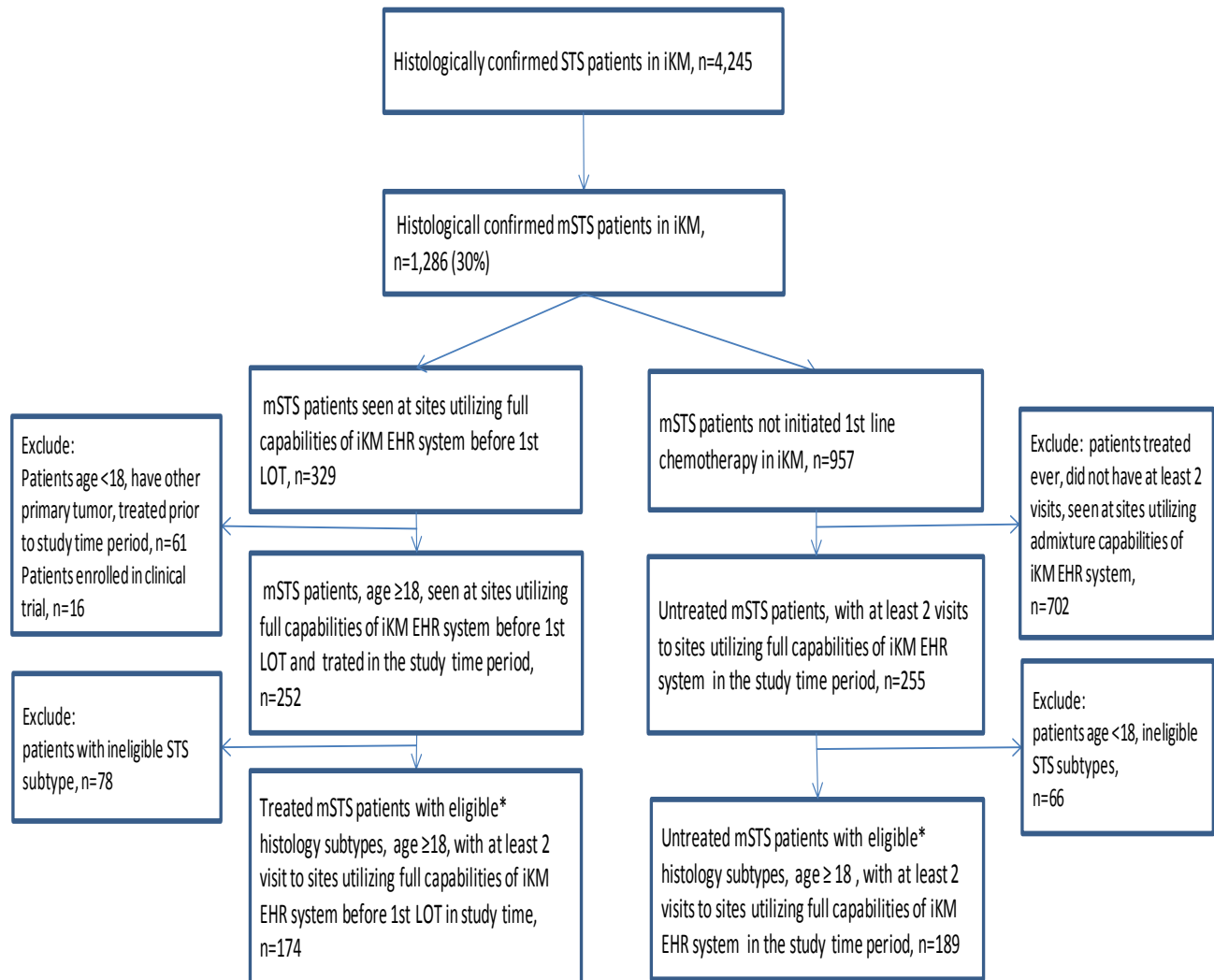


Online only:

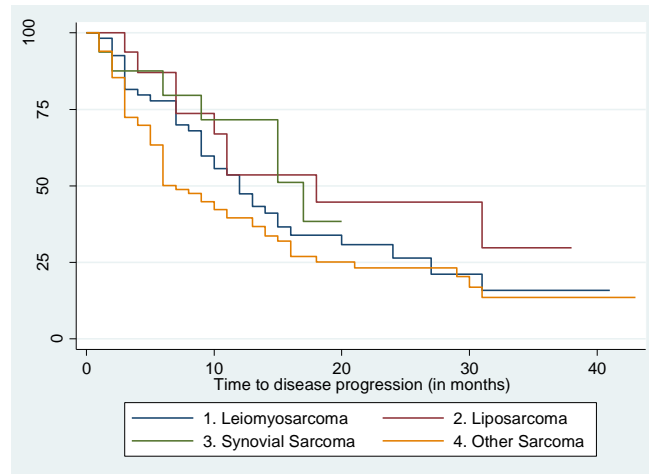
**Supplementary Figure 1.** Patient consort diagram outlining inclusion and exclusion criteria used for selection of patients for study.



\*Eligible histology subtypes include leiomyosarcoma, liposarcoma, synovial sarcoma, and other STS as described in the footnote to Table 1.

\*\*LOT, line of therapy

**Supplementary Figure 2.** Kaplan-Meier estimates for PFS in treated patients according to the three most common STS subtypes in the study population and the remaining STSs (other sarcoma).



\*Among 173 patients receiving first-line chemotherapy, 50 received monotherapy, and 129 received combination therapy.

\*\*Other types of STS are described in the footnote to Table 1.

**Supplementary Table 1.** Monotherapy and combination therapy by subtype/cell morphology of metastatic STS.

| Subtype/Cell Morphology of STS | Monotherapy (N=50) |              | Combination Therapy (N=129)* |              |
|--------------------------------|--------------------|--------------|------------------------------|--------------|
|                                | N (%)              | 95% CI       | N (%)                        | 95% CI       |
| Leiomyosarcoma                 | 9 (18.0)           | (7.4, 28.7)  | 47 (36.4)                    | (28.1, 44.7) |
| Liposarcoma                    | 8 (16.0)           | (5.8, 26.2)  | 12 (9.3)                     | (4.3, 14.3)  |
| Synovial sarcoma               | 3 (6.0)            | (0.0, 12.6)  | 13 (10.1)                    | (4.9, 15.3)  |
| Other sarcoma**                | 30 (60.0)          | (46.4, 73.6) | 57 (44.2)                    | (35.6, 52.8) |

\*Among 173 patients receiving first-line chemotherapy, 50 received monotherapy, and 129 received combination therapy.

\*\*Other sarcomas are outlined in the footnote for Table 1.

**Supplementary Table 2.** Overall survival in months for treated and untreated metastatic STS patients.

|                       | Median<br>(95% CI) | Mean<br>(95% CI) | 6-Month<br>Survival<br>(%),<br>(95% CI) | 12-Month<br>Survival<br>(%),<br>(95% CI) | 24-Month<br>Survival<br>(%),<br>(95% CI) | 36-Month<br>Survival<br>(%),<br>(95% CI) |
|-----------------------|--------------------|------------------|---|--|--|--|
| Overall*<br>(N=354)   | 20<br>(16, 31)     | 29<br>(29, 29)   | 79<br>(74, 83)                          | 62<br>(57, 67)                           | 43<br>(37, 49)                           | 35<br>(29, 41)                           |
| Treated<br>(N=174)    | 22<br>(17, 29)     | 23<br>(22, 23)   | 88<br>(82, 92)                          | 69<br>(61, 75)                           | 45<br>(38, 54)                           | 32<br>(23, 41)                           |
| Untreated*<br>(N=180) | 17<br>(11, 23)     | 28<br>(27, 28)   | 70<br>(62, 77)                          | 55<br>(47, 62)                           | 41<br>(33, 49)                           | 34<br>(26, 42)                           |

\*9 untreated patients were removed from the analysis because of missing data.

**Supplementary Table 3.** Overall survival in months of treated and untreated metastatic STS patients stratified by subtype.

|   | Median Months,<br>(95% CI) | Mean Months,<br>(95% CI) | 6-Month Survival<br>(%),<br>(95% CI) | 12-Month Survival<br>(%),<br>(95% CI) | 24-Month Survival<br>(%),<br>(95% CI) | 36-Month Survival<br>(%),<br>(95% CI) |
|---|----------------------------|--------------------------|--------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Overall<br>(N=354)                          | 20<br>(16, 31)             | 29<br>(29, 29)           | 79<br>(74, 83)                       | 62<br>(57, 67)                        | 43<br>(37, 49)                        | 35<br>(29, 41)                        |
| *Treated-top 3 histology subtypes<br>(N=91) | 29<br>(22, 35)             | 25<br>(24, 25)           | 92<br>(84, 96)                       | 75<br>(64, 83)                        | 55<br>(43, 66)                        | 33<br>(20, 47)                        |
| **Treated-other sarcomas<br>(N=83)          | 17<br>(11, 22)             | 20<br>(20, 21)           | 83<br>(72, 89)                       | 58<br>(47, 68)                        | 32<br>(21, 43)                        | 29<br>(19, 41)                        |
| Untreated <sup>†</sup><br>(N=180)           | 17<br>(11, 23)             | 28<br>(28, 28)           | 70<br>(62, 77)                       | 55<br>(47, 62)                        | 41<br>(33, 49)                        | 34<br>(26, 42)                        |

\*Treated-top 3 histology subtypes and \*\*other sarcomas are described in the footnote to

Table 1.

<sup>†</sup>9 untreated patients were removed from the analysis because of missing data.

**Supplementary Table 4.** Progression-free survival in months for treated metastatic STS patients stratified by subtype.

|                         | Median Months,<br>(95% CI) | Mean Months,<br>(95% CI) | 6-Month Survival<br>(%), (95% CI) | 12-Month Survival<br>(%), (95% CI) |
|-------------------------|----------------------------|--------------------------|-----------------------------------|------------------------------------|
| Overall (N=173*)        | 11 (9, 14)                 | 15 (14, 15)              | 66 (58, 72)                       | 46 (38, 54)                        |
| Leiomyosarcoma (N=55)   | 12 (9, 15)                 | 15 (15, 15)              | 70 (56, 80)                       | 47 (33, 60)                        |
| Liposarcoma (N=19)      | 18 (7, -†)                 | 19 (17, 21)              | 74 (44, 89)                       | 54 (27, 75)                        |
| Synovial sarcoma (N=16) | 17 (6, -)                  | 13 (12, 14)              | 80 (49, 93)                       | 72 (40, 88)                        |
| Other sarcomas** (N=83) | 7 (6, 13)                  | 13 (12, 13)              | 50 (39, 61)                       | 40 (29, 50)                        |

\*Among those 174 patients, one patient did not receive first-line treatment; they received second-line treatment as initial therapy.

\*\*Other sarcomas are described in the footnote to Table 1.

PFS in this study was defined as the time in months from the initiation of first-line chemotherapy to the initiation of second-line chemotherapy, or death from any cause, whichever occurred first. The mean PFS and its standard error were underestimated because the largest observation was censored and the estimation was restricted to the longest event time.