Supplementary table 1. Energy-dispersive x-ray spectroscopy of Cu formulations and stainless-steel coupons before and after 1 year of clinical use

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Weight (%) | Integral |   | Spray-on |   | CIS |   | Stainless steel |
| O | Ni | Cu |   | O | Ni | Cu |   | O | Cu |   | Cr | Fe | Ni | Mo |
|  | NYH |
| Before | 8.8 | 8.8 | 82.1 |  | 20.8 | 12.8 | 45.4 |  | 27.2 | 25.9 |  | 14.2 | 49.2 | 6.7 | 0.8 |
| SD | 14.8 | 2.2 | 15.2 |  | 19.0 | 6.8 | 24.3 |  | 18.2 | 33.8 |  | 4.9 | 19.5 | 2.1 | 0.3 |
| After | 6.8 | 9.1 | 79.2 |  | 15.5 | 17.3 | 44.1 |  | 45.3 | 19.4 |  | 15.3 | 54.9 | 7.6 | 2.0 |
| SD | 4.1 | 1.3 | 8.4 |  | 13.0 | 8.7 | 18.9 |  | 16.8 | 24.6 |  | 4.0 | 17.9 | 3.0 | 0.1 |
|  | MSH |
| Before | 14.7 | 8.4 | 75.0 |  | 14.3 | 16.5 | 43.4 |  | 23.6 | 23.2 |  | 13.0 | 51.2 | 6.7 | 0.8 |
| SD | 17.1 | 1.8 | 18.6 |  | 13.5 | 10.5 | 17.0 |  | 16.6 | 32.6 |  | 5.0 | 19.8 | 2.6 | 0.3 |
| After | 8.0 | 11.4 | 74.7 |  | 9.9 | 24.2 | 51.7 |  | 43.0 | 30.2 |  | 16.3 | 70.0 | 9.7 | 2.0 |
| SD | 5.5 | 5.3 | 11.0 |  | 8.6 | 13.9 | 16.5 |  | 19.7 | 29.7 |  | 0.5 | 1.6 | 0.3 | 0.2 |
|  | BCCH |
| Before | 5.9 | 6.9 | 69.1 |  | 8.7 | 12.8 | 51.4 |  | 27.2 | 29.1 |  | 12.2 | 51.8 | 7.5 | 1.8 |
| SD | 7.4 | 2.3 | 23.3 |  | 9.9\* | 4.1 | 15.7 |  | 24.1 | 32.9 |  | 5.5 | 24.5 | 2.8 | 0.4 |
| After | 11.0 | 7.5 | 78.6 |  | 14.2 | 21.1 | 55.5 |  | 45.3 | 13.7 |  | 16.4 | 63.2 | 8.2 | 1.7 |
| SD | 6.7 | 1.4 | 12.4 |  | 15.2 | 9.1 | 21.5 |  | 13.5 | 15.0 |  | 5.6 | 10.5 | 2.6 | 0.6 |
|  | VGH |
| Before | 3.4 | 8.3 | 82.1 |  | 16.4 | 11.4 | 48.8 |  | 31.6 | 25.1 |  | 11.2 | 43.5 | 7.0 | 1.9 |
| SD | 3.1 | 0.6 | 4.6 |  | 14.7 | 5.7 | 22.2 |  | 26.8 | 32.8 |  | 5.9 | 28.1 | 2.9 | 0.3 |
| After | 4.8 | 8.5 | 87.5\* |  | 13.7 | 15.4 | 47.6 |  | 50.8 | 13.4 |  | 19.1 | 65.3 | 8.3 | 2.1 |
| SD | 5.7 | 0.9 | 6.5 |   | 15.4 | 9.6 | 24.1 |   | 12.0 | 13.0 |   | 6.2 | 8.6 | 3.0 | 0.1 |

Weight (%) represents the average measurements up to 10 spots of 4 coupons of each product. SD, standard deviation. \* denotes *p* < 0.05, significant difference between before and after 1 year of use of O and Cu by *t*-test.