The publisher

Osaka Dental Practitioner's Association

http://osk-hok.org

Their newspaper http://osk-hok.org/hokenishinbun/

Word limits

900 to 1000 in the Japanese characters

Deadline

May 25, 2022

Title

The situation of dental metal materials in Sweden

Authors

Makiko Nishi, Chairperson of Non-profit Organisation "Promoting Scientific Assessment in Prevention of Tooth Decay and Gum Disease" (PSAP)

Dowen Birkhed, Professor Emeritus, University of Gothenburg, Sweden

Main texts

Gold-silver-palladium alloys (GSP) are surging due to the Ukraine crisis. Accordingly, the official price of the GSP, which was revised on April 1, was urgently adjusted again on April 13. However, there is no denying the feeling that "water is a drop in the bucket." International news last year [1] had already said that dentists had been losing money due to the high price of palladium. The problem is that the price revision of insurance has not

caught up with it. Still, it is a unique situation only in Japan. We need to take this opportunity to review if the GSP is appropriate as a dental material, don't we?

Therefore, we investigated the situation of dental metal materials in Sweden, which is developing evidence-based dental care, as an example overseas. The public financing of oral healthcare for adults in Sweden is generous by EU standards. It is subsidised (up to 75%) by the state for prosthetic dentistry and dental materials, using national tax revenues [2].

Three experts on prosthetics and dental materials were interviewed. All three have a PhD with long years of research, teaching, and clinical experience. Two are dentists (the director of a large public dental clinic and the chief professor of dental materials at a dental school). One is a dental technician (the principal of a dental technician's school). They are 40 to 60 years old and still active. We asked them three questions. Below is a summary of the three respondents' responses. Although this is a brief interview, we hope it helps.

Question 1: What kind of prosthodontics materials are used now in Sweden?

Answer: Prosthodontics materials have changed over the years, but before 1999, high-gold alloys were used in bridges. Cobalt-chrome has been most used since 1999. Lithium disilicate and zirconia are most frequently used for crowns. Titanium is also available. The most significant change in recent years has been increasing zirconium crowns and bridges. The GSP has been rarely used for more than ten years (Note: the GSP is rarely used overseas, including in Sweden. In Japan, when palladium was cheap, the use of the GPS began to replace gold for the low insurance dental care.)

Question 2: What is used for bridges with three or more teeth that require strength?

Answer: Cobalt chromium or zirconia, no gold para-alloy. Zirconia ceramic bridge is used depending on the size.

Question 3: In Sweden, do they have prosthodontics expenses not covered by insurance (i.e., patients pay 100%)? If so, which cases (or materials) are not covered by insurance?

Answer: The cost of metals is included in the regular treatment price, and the cobalt-chromium above, zirconia, lithium disilicate, titanium, and zirconia ceramics are covered by public insurance. Patients may choose a higher material, such as a gold alloy, in which case they pay 100% of their expenses (Note: As a precondition, Swedish health insurance dental treatment fees are several times higher than those in Japan, and there is no circumstance to support the management of a dental office by self-pay treatment).

(1220 Japanese characters)

References

1. HAMA M. Japan's very precious 'silver' teeth bite into dentist profits - Nikkei Asia: Nikkei Inc.; 2021 [cited 2022 May 5]. Available from:

 $\underline{https://asia.nikkei.com/Business/Markets/Commodities/Japan-s-very-precious-silver-teeth-\underline{bite-into-dentist-profits}.}$

2. Pälvärinne R, Widström E, Forsberg B, Eaton K, Birkhed D. The healthcare system and the provision of oral healthcare in European Union member states. Part 9: Sweden. Br Dent J. 2018;224(8):647-651.