

Scientific Sheet – Clinical studies

EQUIA®

TITLE	Clinical performance of a new glass-ionomer based restoration system: A retrospective cohort study
REFERENCE	K. FRIEDL, K.A. HILLER & K.H. FRIEDL Dent Mater (2011) 27(10):1031-7
DESIGN	Retrospective cohort study with 151 restorations
WHAT IS BEING TESTED?	The suitability of a glass-ionomer system (EQUIA) as a permanent restoration material in posterior cavities.

After 2 years and about 150 restorations were evaluated, it was concluded that EQUIA may be used as a permanent restoration material for any size of Class I and in smaller Class II cavities.

TITLE	7 Years, Multi- centre, Clinical Evaluation on 154 Permanent Restorations Made With a Glass ionomer-based Restorative System
REFERENCE	M. BASSO, J. GONE BENITES, A. IONESCU, C. TASSERA IADR- APR abstract 0446, Seoul 2016
DESIGN	154 restorations were performed in 124 patients. 149 restorations evaluated at 7 years (42 Class I, 70 Class II, 37 Class V; 9 incisors, 11 canines, 50 premolars and 79 molars)
WHAT IS BEING TESTED?	To evaluate the clinical performance of a restorative system based on a high- viscosity, coated glass-ionomer cement (i.c. EQUIA) for Class I, II and V permanent dental restorations.

After 7 years, Highest number of failures were reported in class II (21) in respect to Class I (no failures) and Class V (12). In molars, incidence of lost restorations seems to be influenced by numbers of walls involved by cavity preparation. Optimal performances for Class I (no failures over 42 restorations) suggest that EQUIA is a reliable choice for permanent dental restorations, even in load bearing tooth surfaces of molars and premolars.

TITLE	Clinical performance during 48 months of two current glass ionomer restorative systems with coatings: a randomized clinical trial in the field
REFERENCE	T. KLINKE, A. DABOUL, A. TUREK, R. FRANKENBERGER, R. HICKEL AND R. BIFFAR. Trials (2016) 17(1):239
DESIGN	Prospective, double blinded randomized control clinical trial
WHAT IS BEING TESTED?	The clinical performance of a GIC material (Fuji IX GP Fast, GC) versus a coated GIC system (EQUIA, GC)

After 4 years, 782 fillings in 510 patients were evaluated. EQUIA and Fuji IX GP fast were used to restore permanent teeth, Class I, Class II mo/od and Class II mod. Both systems performed similarly after 48 months in Class I cavities. For Class II mo/od fillings, EQUIA showed a better overal performance with fewer failures in the follow-up

This suggests that EQUIA is a worthy alternative for an aesthetic and economical long-term filling.



TITLE	Clinical performance of a glass ionomer restorative system: a 6-year / evaluation
REFERENCE	S. GURGAN, ZB. KUTUK, E. ERGIN, SS. OZTAS & FY. CAKIR Clin Oral Investig. 2016 Dec 20. doi: 10.1007/s00784-016-2028-4. [Epub ahead of print]
DESIGN	Clinical trial with 140 (80 Cl1 and 60 Cl2) fillings in 59 patients
WHAT IS BEING TESTED?	The clinical performance of a glass-ionomer restorative system (EQUIA, GC), compared with a microhybrid composite resin (Gradia Direct Posterior, GC).

After 6 years 115 fillings (70CL I and 45 CL II) in 47patients were evaluated, both EQUIA and Gradia Direct Posterior showed significant differences regarding marginal adaptation and marginal discoloration (p<0.05). The study showed that there was a significant decrease in color match in EQUIA restorations (p=0.01). Only one Class 2 EQUIA restoration was missing at 3 years and one at 4, while there were no failures at 5- and 6-year controls.

Conclusion: both restorative materials exhibited a similar and clinically successful performance after 6 years.

TITLE	The effect of a nano-filled resin coating on the 3-year clinical performance of a conventional high-viscosity glass-ionomer cement
REFERENCE	V.T.K. DIEM, M.J. TYAS, H.C. NGO, L.H. PHUONG & N.D. KHANH Clin Oral Investig. 2014 18(3):753-9
DESIGN	Clinical trial with 198 evaluated restorations
WHAT IS BEING TESTED?	The respective clinical performances of a conventional GIC (GC Fuji IX GP Extra, GC), a resin-coated GIC (GC Fuji IX GP Extra + G-Coat Plus, GC) and a resin composite (Solare, GC) as a comparison material.
This study shows that although both GC Fuji IX GP Extra and GC Fuji IX GP Extra with G-Coat Plus (EQUIA restorative system) showed acceptable clinical performance in occlusal cavities in children, the application of G-Coat Plus gave some protection against wear.	

Clinical Relevance: The application of G-Coat Plus to GC Fuji IX GP Extra glass-ionomer cement may be beneficial in reducing wear in occlusal cavities.

TITLE	A Prospective Six-Year Clinical Study Evaluating Reinforced Glass Ionomer Cements with Resin Coating on Posterior Teeth: Quo Vadis?
REFERENCE	L.S. TURKUN & O. KANIK Oper Dent. 2016;41(6):587-598
DESIGN	Clinical trial with 256 restorations in 54 patients
WHAT IS BEING TESTED?	The clinical performance of two reinforced glass ionomer cements (EQUIA, GC and Riva SC, SDI) and two surface coating material (G-Coat Plus, and Varnish, GC) combinations after 6 years

After a six-year clinical evaluation period, the Equia Fil system was more successful than Riva SC regarding color match, marginal adaptation, anatomic form, and retention rate.

Note: EQUIA Restorative Concept was launched in March 2007 bearing the components Fuji IX GP EXTRA + G-Coat PLUS. Since March 2011, it has been rebranded as a New Restorative System bearing the components EQUIA® Fil and EQUIA® Coat. All the products Fuji IX GP EXTRA, G-Coat PLUS and the EQUIA Restorative System co-exist in the market; These clinical papers are a selection of the available evidence on EQUIA. More supporting studies are available and can be delivered upon request.

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