

## Scientific Sheet - Clinical studies

### EQUIA®

TITLE	<b>Clinical performance of a new glass ionomer based restoration system: A retrospective cohort study</b>
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.
<p><b>After 2 years and about 150 restorations</b> it was concluded that <b>EQUIA</b> may be used <b>as a permanent restoration material for any size of Class I and in smaller Class II cavities.</b></p>	

TITLE	<b>48-Months, Multicentre, Clinical Evaluation on 304 Glass Ionomer Permanent Restorations</b>
REFERENCE	M. BASSO, A. IONESCU & M. GONE BENITES Abstract 192686, IADR- PER, Dubrovnik 2014
DESIGN	Prospective clinical trial
WHAT IS BEING TESTED?	To evaluate clinical efficiency and mechanical resistance of restorative system based on a high-viscosity, coated glass ionomer cement (EQUIA), when used for permanent restorations.
<p><b>At 48 months</b>, 304 restorations were evaluated in 202 patients (82 Class I, 150 Class II, 72 Class V). Overall general success rate reported was of 91,45%, and a general integrity rate (only Criteria =0) of 79,61%. <b>These results suggest that the restorative system used in this trial can be a reliable choice for permanent dental restorations, even in load bearing tooth surfaces of molars and premolars.</b></p>	

TITLE	<b>Randomized Clinical Trial in the field: Longevity after 24 months</b>
REFERENCE	T.U. KLINKE, A.A. DABOUL & R.H. BIFFAR (University of Greifswald) J Dent Res 92 (Spec Iss B): Abstract 3, 2013
DESIGN	Prospective, double blinded randomized control clinical trial
WHAT IS BEING TESTED?	The clinical performance of a GIC material (GC Fuji IX GP Fast, GC) versus a coated GIC system (EQUIA, GC).
<p><b>The results showed good clinical performance of GIC and EQUIA.</b></p> <p>No significant differences in survival rate were found between both materials. Cavity preparation and material application should adhere to the indications and recommendations set by the manufacturer in order to have a higher filling longevity. The ongoing follow up will strengthen the current results.</p>	



<b>TITLE</b>	<b>60-Month Clinical Performance Of A Glass-Ionomer Restorative System</b>
<b>REFERENCE</b>	S. GURGAN, Z.B. KUTUK, E. FIRAT, F.Y. CAKIR & S.S. OKTAS Abstract 89, IADR Cape Town 2014
<b>DESIGN</b>	Five-year randomised clinical trial on 140 (80 C11 and 60 C12) lesions in 59 patients
<b>WHAT IS BEING TESTED?</b>	The clinical performance of a glass ionomer restorative system (EQUIA, GC), versus a micro-filled posterior composite (Gradia Direct Posterior, GC).
<p>After 60 months 126 (76 C11 and 50 C12) restorations were evaluated in 52 patients. None of the restorations showed trends to downgrade in anatomical form, secondary caries, surface texture, postoperative sensitivity and color match (<math>p &gt; 0.05</math>).</p> <p><b>Conclusion: The use of both materials for the restoration of posterior teeth exhibited a similar and clinically successful performance after 60 months.</b></p>	

<b>TITLE</b>	<b>The effect of a nano-filled resin coating on the 3-year clinical performance of a conventional high-viscosity glass-ionomer cement</b>
<b>REFERENCE</b>	V.T.K. DIEM, M.J. TYAS, H.C. NGO, L.H. PHUONG & N.D. KHANH Clin Oral Investig 2014 18(3):753-9
<b>DESIGN</b>	Clinical trial with 198 evaluated restorations
<b>WHAT IS BEING TESTED?</b>	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.
<p>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.</p> <p><b>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.</b></p>	

<b>TITLE</b>	<b>Clinical evaluation of new encapsulated glass ionomers and surface coating combinations for 24-months</b>
<b>REFERENCE</b>	O. KANIK & L.S. TURKUN Clin. Oral Invest (2011) 15:771–857
<b>DESIGN</b>	Clinical trial with 248 evaluated restorations in 52 patients
<b>WHAT IS BEING TESTED?</b>	The clinical performance of two encapsulated glass ionomer cements (GC Fuji IX GP Extra, GC and Riva SC, SDI) and two surface coating materials (G-Coat Plus, GC and GC Fuji Varnish, GC) combinations for 24-months.
<p>Some large Class II restorations of both groups were broken from their marginal ridges leading to replacement.</p> <p><b>The colour match of GC Fuji IX GP Extra was better than Riva SC (<math>p \leq 0.05</math>).</b></p> <p>Clinical Relevance: Encapsulated GICs and light-cured nano-filled coating combinations were found to be suitable permanent restorative options for Class I and small to medium Class II restorations.</p>	

Note: EQUIA Restorative Concept was launched in March 2007 bearing the components GC 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 GC 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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