

# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## **TWO** YEAR SURVIVAL, ACCEPTABILITY AND FEASIBILITY OF ART RESTORATIONS IN PEOPLE WITH DISABILITY.

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# **ATRAUMATIC RESTORATIVE TREATMENT IN SCD.**

## **INTRODUCTION**

### **Atraumatic Restorative Treatment Approach:**

- **Is a non-invasive approach to restorative treatment**
- **Has a solid evidence base, consolidated over 30 years**
- **ART has been shown to be equally effective as conventional restoration in both primary and permanent teeth.**
- **Is endorsed by the World Health Organisation**
- **Follows a strict protocol**
- **Involves caries removal with hand instruments**
- **Avoids the need for local anaesthesia**
- **Involves restoration with high viscosity glass ionomer cement**

**Frencken JE, Leal SC, Navarro MF. Twenty-five-year atraumatic restorative treatment (ART) approach: a comprehensive overview. Clin Oral Invest 2012; 16(5):1337-1346**

**Frencken JE, Leal SC. The correct use of the ART approach. J Appl Oral Sci. 2010;18(1):1-4.**

# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## INTRODUCTION

**It has been suggested that ART might be useful in SCD:**

- **Relatively rapid restoration placement**
- **Avoidance of rubber dam placement**
- **Avoidance of local anaesthesia ('the needle')**
- **Avoidance of rotary instrumentation ('the drill')**

# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## INTRODUCTION

**Two year survival, acceptability and feasibility of ART restorations in people with disability.**

### **STUDY AIM:**

- **2 year follow-up of ART restorations to assess survival, acceptability and feasibility compared to conventional restorations in people with disability.**

# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## METHOD

**Two year survival, acceptability and feasibility of ART restorations in people with disability.**

### **Participants:**

- **66 patients (13.6  $\pm$ 7.8 years) with 16 medical disorders were included in the study (consecutive recruitment).**
- **At initial appointment two treatment techniques explained – ART restorations and conventional composite resin restorations**

# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## METHOD

**Two year survival, acceptability and feasibility of ART restorations in people with disability.**

### **Group assignment:**

- **At the second visit, the patient and/or carer expressed treatment preference**
- **Treatment was attempted and preference retained or changed according to ability to perform treatment to an acceptable clinical standard**

### **Treatment & follow up:**

- **At subsequent visits treatment was completed according to group assignment**
- **Follow up was performed at 6, 12 and 24 months**

# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## METHOD

**Two year survival, acceptability and feasibility of ART restorations in people with disability.**

### **Evaluation**

#### **Effectiveness**

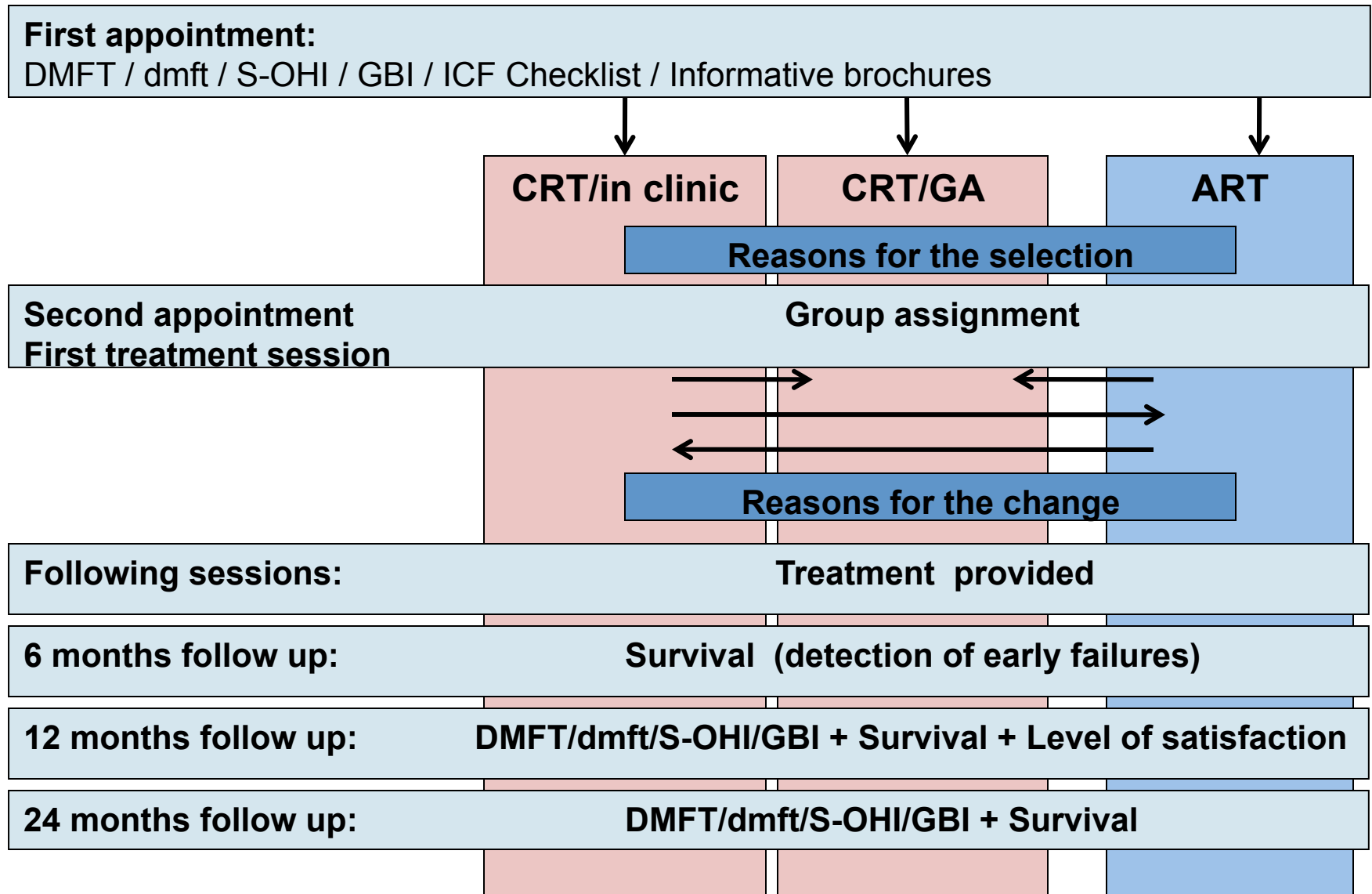
**Survival of restorations at 6, 12 and 24 months**  
**ART Restoration Criteria\***

#### **Suitability (acceptance, feasibility and satisfaction)**

**Reasons for selection of a treatment technique**  
**Reasons for change from preferred option**  
**Level of satisfaction with treatment received**

\*Frencken JE, Holmgren CJ: *Atraumatic restorative treatment for dental caries*. STI book : Nijmegen; 1999.

# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.





# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## RESULTS

Two year survival, acceptability and feasibility of ART restorations in people with disability.

Treatment preference & acceptability:

No. patients

Composite  
Chairside

15

*“Want ordinary treatment; ART lower quality treatment; Keep to what we know”*

Composite  
GA

8

*“Needs too many fillings; Dental examination difficult; Urgent need for treatment”*

ART  
Chairside

43

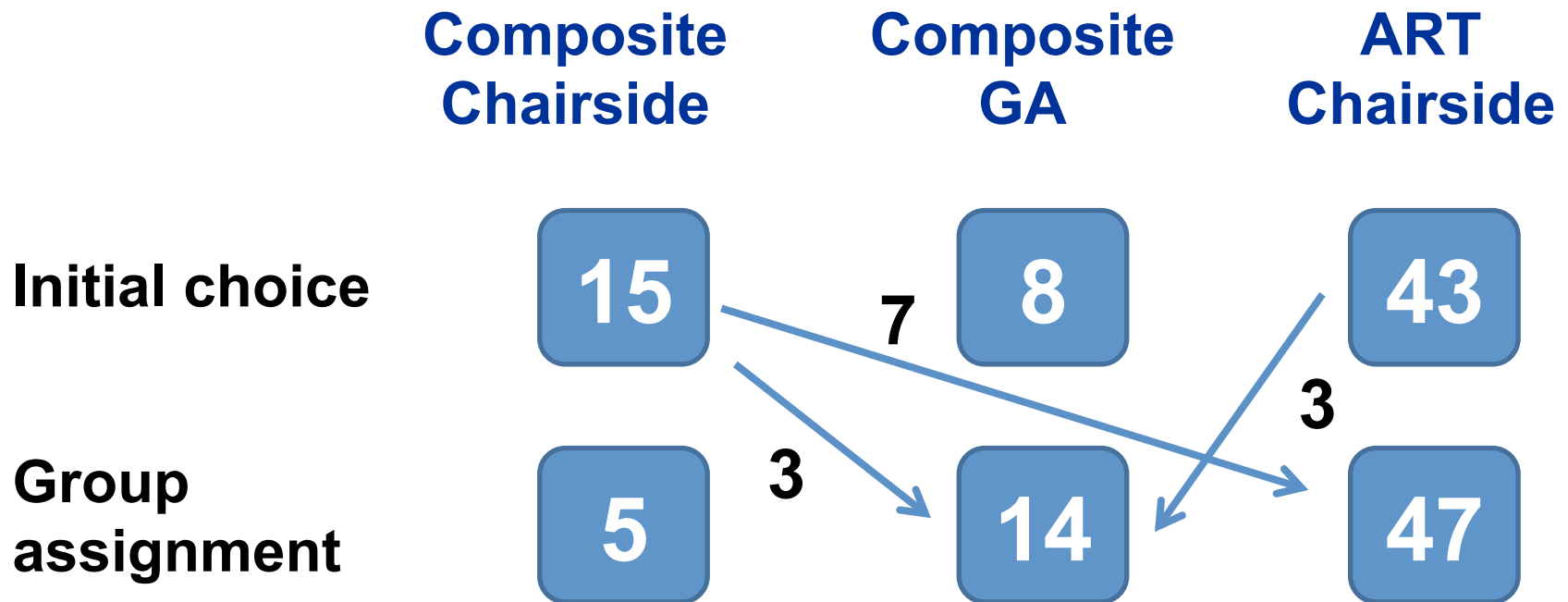
*“Cannot cope with drill; Spasticity triggered by drill; Want to avoid general anaesthesia”*

# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## RESULTS

Two year survival, acceptability and feasibility of ART restorations in people with disability.

Group assignment & feasibility:



# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## RESULTS

**Two year survival, acceptability and feasibility of ART restorations in people with disability.**

### **Group assignment & feasibility:**

#### **Reasons given for a change of group:**

- **Inability to provide restorations of optimal clinical standard**
- **Inability to cooperate**
- **Hyperactivity**
- **Inability to cope with drill**
- **Treatment required too extensive for level of cooperation**

# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## RESULTS

Two year survival, acceptability and feasibility of ART restorations in people with disability.

Treatment Provided	Composite Chairside 5 patients	Composite GA 14 patients	ART Chairside 47 patients	TOTAL
Number of permanent restorations	17	30	122	169
Number of primary restorations	4	65	47	116
Total number of restorations	21	95	182	298

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**Survival: Percentage survival rates (surv) and standard error (SE) of ART and CRT restorations by type of teeth**

Interval (years)	ART				CRT			
	primary	Permanent	primary	Permanent	primary	Permanent	primary	Permanent
	Surv	SE	Surv	SE	surv	SE	Surv	SE
6 mths	98.3	0.6	98.4	1.2	92.8	5.1	97.8	0.7
1 year	96.5	2.6	98.4	1.2	89.9	4.1	91.3	7.2
2 years	92.1	2.2	95.9	1.8	85.9	4.3	87.1	7.6

# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## RESULTS

**Two year survival, acceptability and feasibility of ART restorations in people with disability.**

### **Survival:**

**The 2-year survival rates and jackknife standard error of ART and CRT restorations were  $94.8 \pm 2.1\%$  and  $86.5 \pm 4.1\%$ , respectively ( $p=0.01$ ).**

**Reasons for failure were predominantly related to marginal defect and fracture in the restoration.**

# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## RESULTS

**Two year survival, acceptability and feasibility of ART restorations in people with disability.**

**Satisfaction:**

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	<b>Visual Analogue Scale (0-10)</b>
<b>Selected and received ART</b>	<b>9.2 ±0.9</b>
<b>Selected and received CRT</b>	<b>7.4 ±1.1</b>
<b>Selected and received CRT GA</b>	<b>8.1 ±1.1</b>

**Satisfaction among ART receivers were statistically significantly higher than for CRT receivers in both the clinic and under general anaesthesia (Bonferroni;  $\alpha=0.05$ ).**

# ATRAUMATIC RESTORATIVE TREATMENT IN SCD.

## CONCLUSION

**Two year survival, acceptability and feasibility of ART restorations in people with disability.**

**The results of the present study show that ART is a feasible, acceptable and effective approach to restorative treatment in patients with disability, many of whom have difficulty coping with conventional treatment.**



**THANK YOU FOR YOUR  
ATTENTION**

**Molina et al.: One year survival of ART and conventional restorations in patients with disability. BMC Oral Health 2014 14:49.**

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