


Dental informatics in clinical practice

Dental Informatics Online Community Webcast

Clinical computer use in general dentistry

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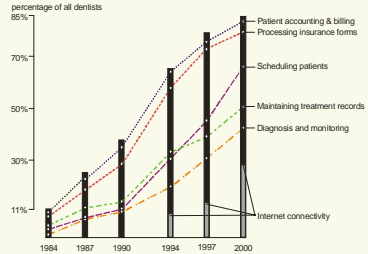


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Ligonier, Pennsylvania, 10/2004

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Background and motivation



Computer ownership, Internet connectivity and selected computer uses in dental practice (1984-2000)

(Schleyer T.K, Spallek H, Bartling WC, Corby P. The technologically well-equipped dental office. Journal of the American Dental Association 2003; 134 (January); 30-41.)

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Study goal and methods

- **Goal**
 - determine how dentists use computers in clinical care (infrastructure, data entry/retrieval, barriers/enablers, etc.)
- 39-item telephone interview (exploratory study!)
- random US sample (from the ADA): 1,159 dentists

Schleyer TK, Thyvalikakath TP, Spallek H, Torres-Urquidy MH, Hernandez P, Yuhaniak J. Clinical computing in general dentistry. J Am Med Inform Assoc. 2006 May-Jun;13(3):344-52.

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Two-stage survey process

Screening

	n	%	adj. %
computer at chairside	256	22.1	24.6
computer not at chairside	647	55.8	62.3
no computer	136	11.7	13.1
refused to be screened	120	10.4	100.0
	1159	100.0	

Interview

	n	%
completed	102	39.8
non-respondent	154	60.2
	256	100

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Results

Experience with computers

- 61% have taken a computer course
- computer experience was rated as:
 - 42% very comfortable
 - 47% comfortable
 - 11% not very comfortable

Practices, operatories and chairside computers

- Practice: solo: 45%; group: 55 %
- average number of operatories: 6
- 83% had computers in all operatories.

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Practice management systems (n=101*)

Software application	Used by
Dentrix	40%
Eaglesoft	15%
Softdent	15%
Practiceworks	10%
Other	21%

*One dentist did not answer

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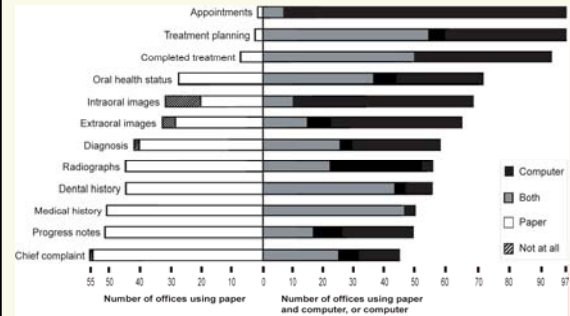
Reasons for using computers at chairside (n=173*)

Data management		27%
Scheduling	11%	
Retrieval	6%	
Treatment planning	5%	
Direct data entry	5%	
Digital imaging		17%
Efficiency		12%
Current technology		9%
Minimize front desk congestion		6%
Intraoral charting		6%
Patient education		6%
Other		5%
Convenience		3%
Better communication		2%
Error reduction		1%

*Multiple reasons cited

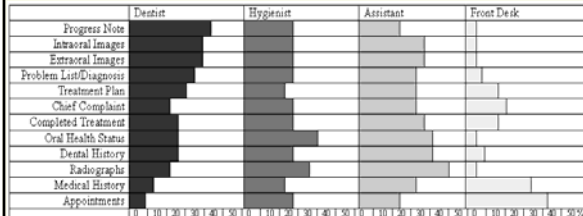
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Storage of patient information



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Chairside data entry



(100 offices; sorted by dentist's activity in descending order)

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How computers could be improved for chairside use

Response	n	%
Improved input (e.g. voice, touch and keyboard)	35	28.2
Better usability and user interface design	14	11.3
Smaller computers, monitor	14	11.3
Better hardware and/or software integration	13	10.5
Improved digital radiology	7	5.6
Wireless connections	7	5.6
Faster computers	7	5.6
More stable system	5	4.0
Lower cost	4	3.2
Other	12	9.7
None	6	4.8

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Thank you for your attention!



Natchez Trace, Mississippi, 11/2001

Please visit us on the Web:

Dental Informatics Online Community
<http://www.dentalinformatics.com>

Center for Dental Informatics
<http://di.dental.pitt.edu>

This study has been published as:

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