

# Risk Assessment: View from the Profession

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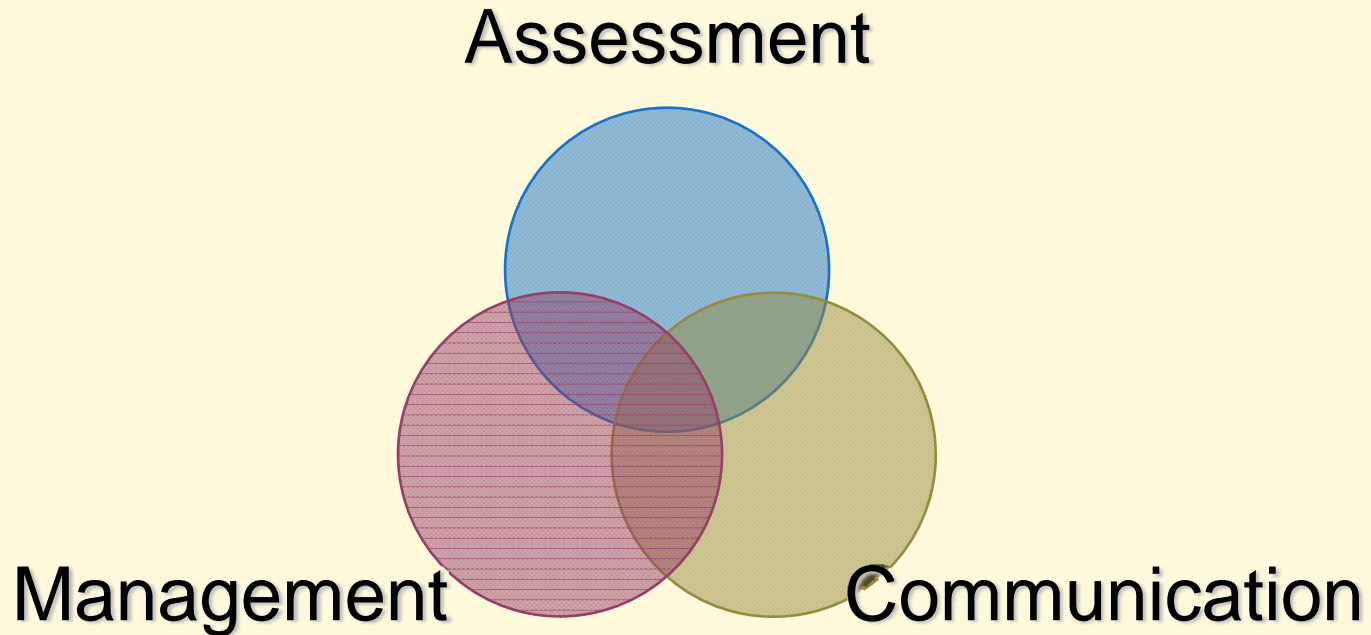
# Clinical Risk Assessment - Overview

- What is it?
- Why is it important?
- How is it used?
- How do dentists and the benefits industry view risk?

# What is Risk?

- Generally defined as the chance or probability of an adverse event occurring within a period of time

# Three Parts of Risk



# What is Risk Assessment?

- Collection and evaluation of data to determine:
  - likelihood that an event will occur
  - degree or severity of the expression of the event, if the event occurs

# What is Risk Communication?

- Transfer or exchange of information about risk between interested parties
  - Informed consent
  - Oral health literacy

# What is Risk Management?

➤ The process of analyzing exposure to risk and determining how to best handle such exposure

- Treatment – alternative treatment
- No treatment

# Types of Risk Assessment in Practice

## ➤ Clinical

- Dental diseases or conditions
- Patient safety
- Clinician ergonomics

## ➤ Non-clinical

- Physical liability issues (fire, personal injury)
- Employment liability (worker's comp; EEOC)



# Today's Focus: Clinical Risk Assessment

- Key to objective assessment of patient
- Helps to individualize care

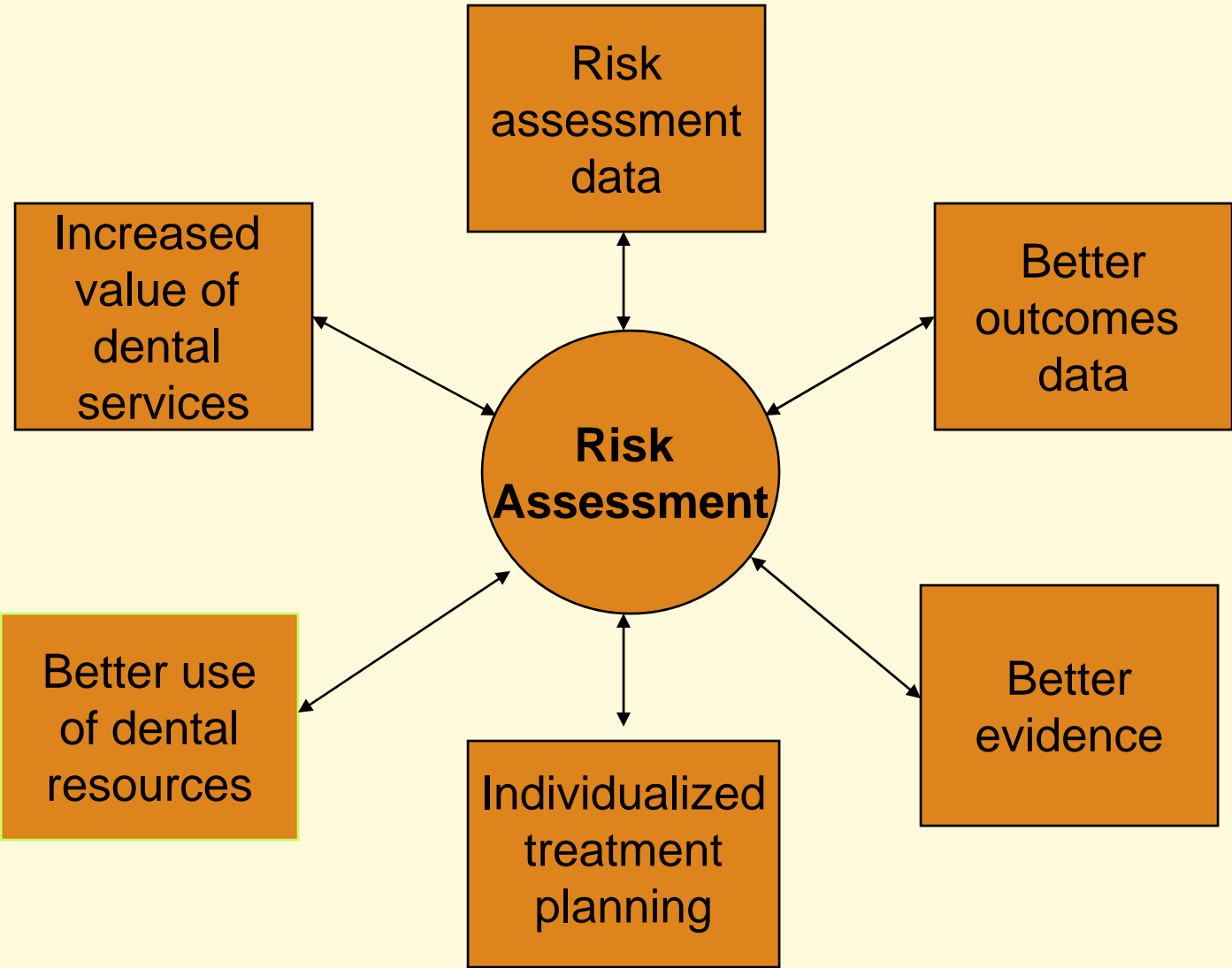


# Development of Clinical Risk Assessment

- Dentists have evaluated risk informally
  - Medical history
  - Dental history
  - Clinical findings
- May not be fully documented
- Integral component of treatment planning

# Advantages of Clinical Risk Assessment

- Objective data gathered
- Individualized treatment
- Better outcomes
- Better evidence
- Better use of dental resources
- Increased value of dental services



# Why Focus on Risk Assessment?

- Supports professional ethics
- Supports individualized care
- Supports efficient delivery of dental care

# Why Focus on Risk Assessment?

## ➤ Ethics

- Duty to respect the patient's rights to self-determination
- Duty to promote the patient's welfare
- Duty to communicate truthfully

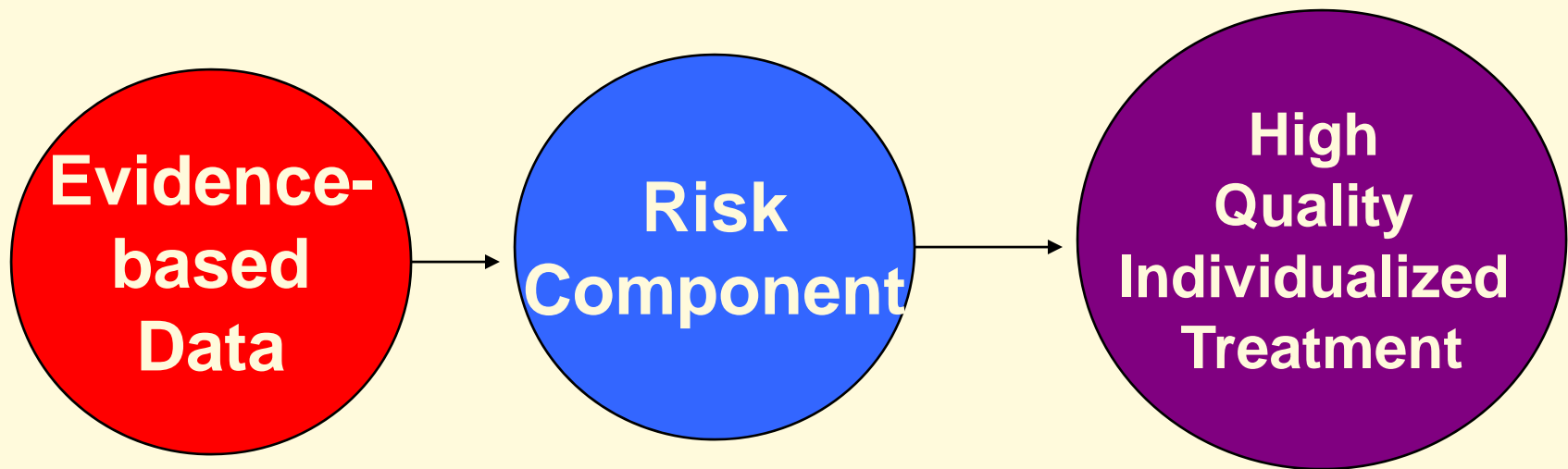
# Why Focus on Risk Assessment?

## ➤ Individualized Care

- Evidence-based dentistry provides relevant, scientifically based, clinical information
- Evidence-based clinical recommendations depend on risk assessment for individual treatment decisions
- Exercise of professional judgment ensures patients can receive high quality care based on the individual's clinical treatment needs and preferences

# Clinical Risk Assessment

Risk Component – Translates  
Evidence to Practice





# Why Focus on Risk Assessment?

- **Efficient Delivery of Patient Care**
  - Patient receives necessary treatment at optimal intervals
  - Early interventions lessen severity of disease expression

# Why Focus on Risk Assessment?

- Provides a standardized approach, with application to individual patients
- Different tools developed for different populations and uses
  - Caries, Periodontal Disease
  - Adult, Child
  - Dentist, Patient

# Clinical Risk Assessment Tools

- Clinical risk assessment tools based on a selected set of risk factors
- Tools developed by associations, educators, benefits companies, manufacturers

# Clinical Risk Assessment Tools

## ➤ Common features

- Identification of risk factors
  - Based on best evidence and/or expert opinion
  - Ease of use for targeted audience
- Assignment of relative importance of risk factors
  - Low, moderate, high risk

# Risk Factors

## ➤ What is a Risk Factor?

- Direct Cause of Disease
- Potentiator of Disease
- Marker of Disease

# Risk Factors

## Direct Cause of Disease

➤ Independent effect in the development of disease

- Infectious disease
- Deficiency disease
- Genetic disease
- Many others

# Risk Factors

## Potentiator of disease

➤ Associated with direct risk factors to increase expression of disease

- Frequent intake of simple sugars increases action of Strep mutans
- Low socio-economic status (SES) associated with many chronic diseases

# Risk Factors

## Markers of Disease

- Physical expression of disease state
- Strong associations between disease expression and potential for future disease
  - Restored teeth – a marker for future development of caries
  - Absence of lamina dura – a marker for future periodontal disease



# Risk Assessment

- Increasing interest in clinical risk assessment tools
- Evidence-based Clinical Recommendations depend on clinical risk assessment

# Clinical Risk Assessment Tools

## ➤ ADA/FDA Radiographic Guidelines

- First published in 1985, revised in 2004
- Tied risk of dental diseases to risk of radiation exposure
- Contained risk factors for caries
- Emphasized dentist's professional judgment in weighing of risk factors
- [www.ada.org/prof/resources/topics/topics\\_radiography\\_examinations.pdf](http://www.ada.org/prof/resources/topics/topics_radiography_examinations.pdf)

# Clinical Caries Risk Assessment Tools

## ➤ Caries Assessment Tool (CAT)

- Developed by American Academy of Pediatric Dentistry
- Chart of risk factors with levels of risk
- For infants, children and adolescents

# Clinical Caries Risk Assessment Tools

## ➤ Caries Management by Risk Assessment (CAMBRA)

- Developed by Dr. John Featherstone, USF
- Two forms; one for patients ages 0-5 and one for all others
- Protective factors incorporated

# Clinical Caries Risk Assessment Tools

- Cariogram developed at University of Malmo, Sweden
- Computerized program available for non-commercial use:  
<http://www.db.od.mah.se/car/cariogram/cariograminfo.html>
- Program requires population assessments before individual data inputted
- Printable pie chart and patient advice

# Clinical Caries Risk Assessment Tools

- ADA's Caries Risk Assessment Forms
- Developed through expert consensus process
- Developed for ease of use by dental office
- Communication tool
- Two forms; for patients to age 6, and over age 6

# Other Risk Assessment Tools

- Proprietary Product – Previsor's Oral Health Information Suite
  - Analyzes risk for caries, periodontal disease and oral cancer
- Many third party payer products

# Current ADA Activities

- Recent completion of tools for caries risk assessment
- International meeting to discuss new caries classification system in August 2008
  - Focuses on pre-carious lesions
- Development of dental component of electronic health record



# Current ADA Activities

- **Commitment to Evidence Based Dentistry**
  - EBD Web site under development
  - Research Institute and Center for Evidence-Based Dentistry
  - Clinical Evidence-Based Recommendations
    - Professional Application of Topical Fluoride
    - Pit and Fissure Sealants

# Current ADA Activities

## ➤ Evidence Based Dentistry

- The Evidence-Based Dentistry Champion Conference

May 2 and 3, 2008 Chicago, IL

- The 3rd International Conference on Evidence-Based Dentistry

**Managing Oral Health in a Connected World**

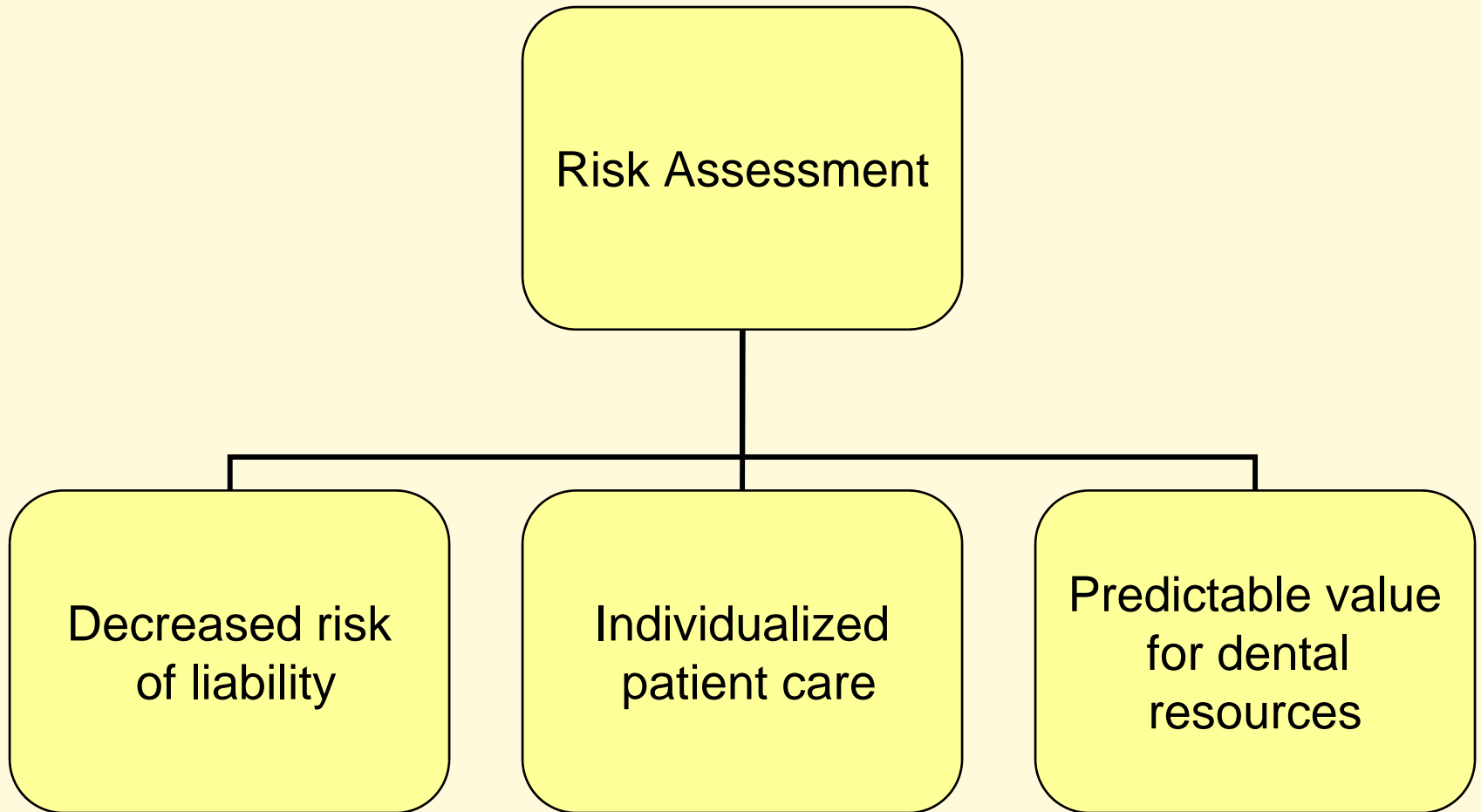
May 4, 2008 Chicago, IL

# Current ADA Activities

## ➤ Oral Health Literacy Initiative

- Review of ADA educational materials to reach intended audience
- Survey of dental schools and other training programs to assess literacy efforts
- Formation of the National Oral Health Literacy Advisory Committee to recommend policies, research and programs

# Risk Assessment is a Win-Win



# It Sounds Great!

- Clinical Risk Assessment could increase effectiveness and efficiency
- Payers and dentists are both eager to reap the benefits

# BUT...Different Views

Benefit Plan View:

D2391

D2750

D4341

Profession's View:



# Different Views

- Dentist perception of insurer and patient risk: cost containment; limit risk factors to markers
- Dentist view of patient risk: concern for individual patient's health; wide range of risk factors; clinical judgment; patient's input

# Some Concerns

- Standardized assessment tools not widely used
- Risk factors used in tools often derived from expert opinion
- Professional judgment adds subjective factor
- Benefit plans discount professional judgment



# Professional Judgment

*Good judgment comes from experience,  
and often experience comes from bad  
judgment.*

Rita Mae Brown

*There is only one thing more painful than  
learning from experience, and that is not  
learning from experience.*

Laurence J. Peter

# What to Do Next?

- Use all of the best available evidence to determine key risk factors
- Validate risk tools with outcome studies
- Develop or update clinical risk assessment tools and repeat

# What to Do Next?

- Educate dentists about standardized, clinical risk assessment tools
- Educate benefit plan developers about clinical risk assessment

# What to Do Next?

➤ Questions??

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