



	Policy and Procedure				
Policy Name:	Standards & Methodology for Orthodontia	Policy ID:	UM.003.01		
Approved By:	Dental Director (signature on file)	Effective Date:	1/1/2013		
States:	California	Revision Date:	N/A		
Application: Government Programs and Commercial DHMO Programs					

This policy applies for operations under Premier Access Insurance Company and Access Dental Plan. For the purposes of this Policy, Premier Access Insurance Company and Access Dental Plan shall be collectively referred to as "Premier Access".

### Purpose

To provide a specific process for reviewing and monitoring the quality and delivery of orthodontic treatment. This process will be concerned with the patient's dental health, function, stability and aesthetics, and will be a means for identifying potential deficiencies in the delivery of orthodontic services.

## Policy

A major component of Premier Access' Quality Management Program is the review of orthodontic provider's charts, facilities and grievances to ensure compliance with professionally recognized standards of care and to help establish and maintain high levels of treatment outcomes and patient satisfaction.

### Definitions

There are currently no applicable terms to be defined for this policy.

### Procedure

- 1. The audit cycle shall be as follows:
  - Annually for all independent practices maintained by contracting providers who receive five (5) or more orthodontic referrals per calendar year.
  - The plan may increase or decrease the frequency of the review, if necessary, as a result of a consultant's review of member grievances or other quality management information suggesting that increased or decreased frequency of evaluation reviews may be in order.
- 2. A review or audit shall consist of a thorough review of each facility and not less than ten (10) patient charts per orthodontic provider at each dental office. The treating orthodontist will not in any way participate in the selection of the charts. The ten charts audited will be selected from a requested group of twenty patient records. The auditor will select seven cases in treatment and three finished cases. Representative groups of patients in treatment for 1-6 months, 6-18 months and 18-24 months will be chosen. The finished cases will be cases of patients whose treatment was finished within a period of six months prior to the audit. Only Premier Access' charts will be reviewed.
- 3. If the orthodontic provider has less than ten (10) Premier Access patients, the orthodontic consultant will then review all of Premier Access' charts at the practice.
- 4. The audit score, the nature of the deficiencies, and the consultant's comments can determine the audit frequency.

The overall audit score shall be determined as follows:

Facility Score = actual facility score

Chart Score =  $(2/3 \times critical chart score) + (1/3 \times chart score)$ 

Overall Audit Score = (facility score x 20%) + (chart score x 80%)

Recommendations for next audit review:

Overall audit score of 85 and above -- review in 12 months

Overall audit score 70 to 84 -- review in 6 months

Overall audit score of 69 and below -- take corrective action which may include counseling, calibration,

education, and a focused audit.

- a. A standard "Orthodontic Facility and Chart Review" checklist (audit tool) shall be used for each provider audit. (See attached Audit Tool Exhibits )
- b. Orthodontic providers must attain an overall score of at least 85%. If a provider does not attain a score of at least 85%, the orthodontic consultant, in conjunction with other appropriate Plan representatives, shall take the appropriate corrective actions (listed above) with the reviewed orthodontist. Critical area(s) of concern will require immediate attention and correction verification.
- c. A report of findings is generated within 30 working days of completion of the audit
- d. Premier Access will communicate with the provider following the facility and chart audit with an audit response letter detailing the audit findings and require a return signed agreement of compliance. On low scores, the Dental Director will contact the provider on a case by case basis. A written response from the provider will be requested when needed.

The orthodontic consultant will be available to review all member complaints and grievances relating to

orthodontic services and will report his findings and recommendations to the Dental Director, the Quality

Management Committee, and/or the Peer Review Committee as necessary.

#### C. Credentials and Calibration of Auditors

The orthodontic auditor(s) will be calibrated. All auditors will be licensed dentists in California with orthodontic

credentials based on the same guidelines as the orthodontic providers. Orthodontic auditors will have current CADP

certification.

The objectives of calibration of orthodontic auditors are:

- 1. to provide and keep current the "Quality of Care Guidelines and Criteria";
- 2. to assess auditing tools and auditing protocol;
- 3. to verify auditor consistency in the review of treatment records;
- 4. to review objectives and protocols for identifying problems; and
- 5. to review the process and effectiveness of corrective actions.

Orthodontic Calibration meetings will be held at least annually. The auditor(s) will be in attendance to assure auditor

compliance with industry standards. A Premier Access QM representative will also be invited to attend the

calibration.

- If the findings of the Consultant indicate severe problems or deficiencies that could jeopardize the safety of the member, the Consultant shall instantly place the provider on notice and will provide an immediate corrective action plan. The Consultant will require the provider to correct the deficiencies within 72 hours. The Consultant will then re-audit the provider within 72 hours to ensure compliance with the corrective action plan.
- If the findings of the Consultant do not point to deficiencies that could jeopardize the safety of the member, the Consultant may select a corrective action plan schedule that varies from three (3) to six (6) months. The Consultant will then re-audit the provider to ensure compliance with the corrective action plan.

#### Attachments:

Orthodontic Chart Review

Assessment - Structural Review

Structural Review Evaluation Measures

#### References

This policy was previously tracked as Quality Management Program Policy and Procedure **UM-16 – Standards & Methodology for Ortho.** 

#### **Revision History**

Date:	Description
01/01/2013	Conversion to new policy and procedure template and naming convention.

ACCESS DENTAL										
Orthodontic Chart Review										
Ortho Office/Drovider	ا-لم ۸									
Ortho Office/Provider	Addre	ess								
Number		City								
Contact	Phone									
Patient Charts Reviewed:	Date	of Au	dit							
Chart # Name										
1	8									
2	9									
3	10									
4										
5										
6	key		Accept				licable			
7		-	_	ptable	_		Evalua	1		r
Phase I, II, Finished	1	2	3	4	5	6	7	8	9	10
1. Informed Consent Form										
a. Appropriate Content										
b. Signed/dated by Dr.										
c. Signed/dated by patient (or parent) Critical										
2. Medical-Dental History										
a. Collected, comprehensive, Y/N Critical		_								
b. Initialed/dated by Dr.										
c. Signed/dated by patient										
d. Updated periodically e. Medical Alerts posted										
f. Follow up on positive responses										
3. Intra/Extra oral examination/Diagnosis										
a. Periodontal screening Critical										
b. Soft tissue status/oral cancer screening										
c. TMJ screening										
d. Habit evaluation										
e. Caries, restorative problems or clearance										
f. Impactions, root problems or pathology g. Angle classification, midlines, overbite										
over-jet, crowding, crossbites, functional shifts										
4. Diagnostic records										
a. X-Rays										
1. Organized (current, mounted, date, name)										
2. Technical quality										
3. Appropriate baseline Critical										
4. Cephalometric film										
5. Cephalometric Tracing		-								
6. FMX/Panograph 7. Tomograph survey (when appropriate)		-			-					
8. Progress (mid-treatment) x-rays as indicated										
b. Study Models trimmed to CR Critical										
c. Photos (to AAO guidelines) Critical										
5. Treatment Plan										
a. Patient's Chief Complaint										
b. Treatment Plan Goals listed										
c. Tx. Plan appropriate, detailed, sequenced, & retention plan Critica	al									
d. Signature of patient/doctor on treatment plan	<u> </u>				<u> </u>					
e. Extractions or non- ext. specified	┨───		_						<u> </u> '	
f. Appliances/auxiliaries listed			_	-					<sup> </sup>	
g. Limitations of treatment/alternate plans listed h. Estimated treatment time									<u> </u>	
6. Preventive										
a. Regular prophy/ck.up recommended/performed										
b. Initial oral hygiene instruction documented	1				1	1	1	<u> </u>	<u> </u>	
c. Hygiene monitored	İ –									
7. Legibility - All records legible with names & dates	1			1	1	Ì	1	İ		
	-									

					-		-				
		1	2	3	4	5	6	7	8	9	10
8. Progress Notes											
a. General (in ink, clear, complete, next visit noted)	Critical										
b. Prescription drugs (Rx, disp, sig, etc.)											
c. Signed/initialed & dated by licensed provider											
d. Emergency treatment documented											
e. Cooperation items/instructions to patient											
9. Treatment											
a. Appt. interval documented and appropriate											
b. Efficient and timely treatment or explained											
c. Documentation of declined treatment											
d. Overall care meets professional standards	Critical										
e. Final records incl., x-rays, photos, study models Critical											
f. Retainers monitored properly											
10. Continuity of Care											
a. Treatment plan followed or formally changed											
b. Documentation of broken appointments and follow-up											
c. Documentation of non-compliance and follow-up											
d. Referral to GP or Specialist when indicated											
e. Referral confirmation and follow-up	e. Referral confirmation and follow-up										
f. Transfer case protocol followed											

Total of Acceptable	
divided by 55 X # of charts minus total # of NA's =	Percent Acceptable =
Total of Acceptable "Critical"	Critical Area
divided by 10 X # of charts minus total # of NA's =	Percentage =
	Acceptables
Summary of areas needing improvement, suggestions made to provider	
Comments:	
Auxiliaries work within the scope of their license? yes no (as reported)	
Exit interview conducted with:	
Suggested next review date:	
Auditor signature Provider/O	ffice Manager signature
Date	

## **ASSESSMENT - STRUCTURAL REVIEW**

Office Name:	Audit Date:
Provider name	
Provider ID:	Auditor:
Address:	

#### Days and times available for patient care

Day	Time
Mon	
Tues	
Wed	
Thurs	
Fri	
Sat	

### I. ACCESSIBILITY

ACCESSIBILITY	Points	U score	Comments/Recommendations
A. 24 hour emergency contact system?	System in place? 2 pts		
	Appropriate Information? 2 pts		
B. Reasonable appt scheduling for plan members?	Initial exam? 3 pts		
	Routine/Working? 3 pts		

#### **II. FACILITY AND EQUIPMENT**

A. Clean, safe, neat and well maintained?	Furniture? 2 pts	
	Floors? 2 pts	
	Lighting? 2 pts	
	Equipment? 2 pts	
B. Compliance with mercury hygiene, safety regulations?		
C. Nitrous Oxide recovery system?		
D. Lead apron (with thyroid collar) for patient?	Lead Apron? 2 pts	
	Thyroid collar? 2 pts	

#### **III. EMERGENCY PROCEDURES AND EQUIPMENT**

A. Written emergency protocols?	Written protocols? 2 pts	
	Exits signs? 2 pts	
	Emergency #'s posted? 2 pts	
B. Medical emergency kit on-site?	Accessible? 3 pts	
	Staff aware of location? 2 pts	
	Complete? 3 pts	
C. Portable emergency oxygen available?	Portable Oxygen? 3 pts	
	Positive pressure device? 3 pts	
	Staff aware of location? 2 pts	

## ASSESSMENT - STRUCTURAL REVIEW

#### IV. STERILIZATION AND INFECTION CONTROL

A. Sterilization and infection control protocols followed?	Protocols in place? 3 pts	
	Protocols followed? 3 pts	
3. Protocol posted for sterilization procedures?	4 pts	
C. Weekly biological (spore) monitoring of sterilizer?	4 pts	
<ol> <li>All instruments and hand-pieces properly cleaned,</li> </ol>	Cleaned/sterilized? 2 pts	
sterilized, and stored?	Utility gloves? 2 pts	
	Storage of instruments? 2 pts	
	Handpieces? 2 pts	
	Disposables? 2 pts	
E. Log kept monitoring changing of sterilization solutions?	Acceptable cold sterilant? 2pts	
	Log kept? 2 pts	
	Appropriate info on log? 2 pts	
5. Staff wears appropriate personal protective equipment?	Gloves? 2 pts	
	Masks? 2 pts	
	Eyewear? 2 pts	
	Coats/Gowns? 2 pts	
G. Proper and adequate use of barrier techniques?	Surface disinfectant used? 2 pts	
	Appropriate disinfectant? 2 pts	
	Barriers? 2 pts	
<ol> <li>Hand-pieces &amp; waterlines flushed appropriately?</li> </ol>	4 pts	
Infection control and cross contamination prevention	Pumice changes? 2 pts	
procedures followed in the office and laboratory?	Rag wheels sterilized? 2 pts	
	Disinfection office/lab? 2 pts	
	Total Unsatisfactory Score =	

Comments

Audtior's Signature

Date

Provider/Office Manager's Signature

Date

## ASSESSMENT - STRUCTURAL REVIEW

Office Name:
Provider name
Provider ID:
Address:

Audit Date:

Auditor:

#### Days and times available for patient care

Day Mon	Time
Mon	
Tues	
Wed	
Thurs	
Fri Sat	
Sat	

I. /	ACCESSIBILITY	Points	U score	Comments/Recommendations
	A. 24 hour emergency contact system?	System in place? 2 pts		
		Appropriate Information? 2 pts		
	B. Reasonable appt scheduling for plan members?	Initial exam? 3 pts		
		Routine/Working? 3 pts		

#### **II. FACILITY AND EQUIPMENT**

A. Clean, safe, neat and well maintained?	Furniture? 2 pts	
	Floors? 2 pts	
	Lighting? 2 pts	
	Equipment? 2 pts	
B. Compliance with mercury hygiene, safety regulations?		
C. Nitrous Oxide recovery system?		
D. Lead apron (with thyroid collar) for patient?	Lead Apron? 2 pts	
	Thyroid collar? 2 pts	

#### **III. EMERGENCY PROCEDURES AND EQUIPMENT**

A. Written emergency protocols?	Written protocols? 2 pts	
	Exits signs? 2 pts	
	Emergency #'s posted? 2 pts	
B. Medical emergency kit on-site?	Accessible? 3 pts	
	Staff aware of location? 2 pts	
	Complete? 3 pts	
C. Portable emergency oxygen available?	Portable Oxygen? 3 pts	
	Positive pressure device? 3 pts	
	Staff aware of location? 2 pts	

## ASSESSMENT - STRUCTURAL REVIEW

#### IV. STERILIZATION AND INFECTION CONTROL

ace? 3 pts
4 pts 4 pts 4 pts red? 2 pts res? 2 pts res? 2 pts les? 2 pts les? 2 pts lant? 2 pts
4 pts 4 pts
ted? 2 pts ves? 2 pts nts? 2 pts ves? 2 pts les? 2 pts les? 2 pts lant? 2 pts
ves? 2 pts nts? 2 pts xes? 2 pts les? 2 pts lant? 2 pts lant? 2 pts
nts? 2 pts xes? 2 pts les? 2 pts lant? 2pts
bes? 2 pts les? 2 pts lant? 2pts
les? 2 pts lant? 2pts
lant? 2pts
ept? 2 pts
log? 2 pts
ves? 2 pts
sks? 2 pts
ear? 2 pts
/ns? 2 pts
ed? 2 pts
ant? 2 pts
ers? 2 pts
4 pts
4 pts jes? 2 pts
jes? 2 pts
anc

Comments

Audtior's Signature

Date

Provider/Office Manager's Signature

Date

Review Criteria	Reviewer Evaluation Measures
I. Accessibility	
	Answering machine, answering service, cell phone, or paging available 24/7 information.
A. 24 Hour Emergency Contact System?	1. Patients informed of emergency system for 24/7 access
	2. Inability to provide 24 hour access for dental emergencies is a departure from accepted standards of care.
- B Reasonable appointment scheduling for plan members?	The patients wait time to schedule an appointment should be reasonable and appropriate.
	1. Initial appointment
	2. Routine/working appointment
II. Facility and Equipment	
	Verification made that facility and equipment are clean, safe and in good repair
	1. There are no visible stains or significant scarring of furniture or floors.
	2. There is no debris on floors or other areas, especially patient care, reception, infection control areas and laboratories.
	3. Décor should be easily cleaned and well maintained
A. Clean, Safe, neat and well maintained?	4. For protection of everyone, employees and patients, lighting should be sufficient to allow safe ingress/egress and to maintain good vision without fatigue.
	5. Dental equipment should be appropriate and in good working condition:
	5a. No equipment with obviously broken parts, visible damage, temporary repairs or grossly torn upholstery.
	5b. Current certification results for equipment requiring local, state or federal certification on file at the facility.
	Compliance with mercury hygiene, safety regulations.
B. Compliance with mercury hygiene, safety regulations?	1. Amalgamators covered.
	2. Bulk mercury and scrap amalgam sorted in sealed, unbreakable containers.
	3. Mercury spill kit.

Review Criteria	Reviewer Evaluation Measures
III. Emergency Procedures and Equipment	
	For fire and/or natural disasters:
	1. A plan indicating escape routes and staff member's responsibilities, including calling for help.
A. Written emergency protocols?	2. Exits clearly marked with exit signs.
	3. Emergency numbers posted, (911, Fire, Ambulance and local 7-digit numbers in both front office and back office or lab. Written protocol for calling for help. Note: If office protocol entails only calling 911, then this section does not apply and evaluation should be marked "N/A"
B. Medical emergency kit on-site?	Medical emergency kit should be complete, easily accessible and labeled with an inventory of contents. Staff should be aware of location of kit. Recommend staff in-service training for general use of contents.
	Portable oxygen supply tank for medical emergencies should be available.
C Portable oxygen supply available?	1. Recommend tanks be maintained full and a positive pressure bag or ambu bag be available.
C Change only gont output a ramage.	2. Recommend staff in-service training for use of emergency oxygen.
	3. Staff should be aware of location.
IV. Sterilization and Infection Control	
A. Sterilization and infection control protocols followed?	Verify sterilization and infection control procedures are in place. Verify staff trained in sterilization and infection control procedures and protocols. Sterilization and infection control procedures shall conform to the Dental Board of California. (DPA Section 1680dd, January 1993)
B. Protocols posted for sterilization procedures?	Protocols conspicuously posted. Dental Board of California. (DPA Section 1005b23, January 2001)
C. Weekly biological (spore) monitoring of sterilizer?	Sterilization procedures shall be monitored weekly and recorded, by appropriate methods, as required by the Dental Board of California. (DPA Section 1005b14, January 2001)

# Accessibility procedures followed in the office and laboratory? Infection control and cross contamination prevention Ţ G. Proper and adequate use of barrier techniques? .т E. Log kept monitoring changing of sterilization solution? sterilized, and stored? D. All instruments and hand-pieces properly cleaned, A. 24 Hour Emergency Contact System? Staff wears appropriate personal protective equipment? Hand-pieces and waterlines flushed appropriately? **Review Criteria** 2. Splattered masks and garments should be replaced as necessary. The patients wait time to schedule an appointment should be reasonable and appropriate approved solution should be used according to the manufacturer's recommendations for sterilization. Answering machine, answering service, cell phone, or paging available 24/7 information Ņ Operatory unit lines shall be flushed between each patient and in the morning before use, for an appropriate amount of time ω Indicate dates solution changed, and dates of expiration of fresh solution. Maintain a written log indicating: regardless of use 2. Acceptable procedures for sterilization are: 1. Patients informed of emergency system for 24/7 access 1. The pumice pan should be changed after each use and rag wheels should be sterilized or discarded 1. Acceptable EPA registered brand name of the cold sterilant (high-level disinfectant) tuberculocidal hospital disinfectant, utilized use Instruments must remain in sealed, sterile bags until ready for use. Once opened, all instruments must be rebagged and resterilized. 1. Contaminated instruments are properly cleaned d. High level disinfectant should be utilized only on instruments that cannot be subjected to other methods of sterilization c. The instruments, which cannot be cold-sterilized, or autoclaved, must be disposable and must be disposed of immediately after b. Hand-pieces shall be properly sterilized between patients and bagged until use a. Storage of instruments shall be in sterile bags or packs that are sealed. There should be no evidence of moisture or torn bags. Utility gloves used. b. Ultrasonic cleaning recommended. Solutions changed per manufacture's specifications Verification made that hard surfaces in all operatories are disinfected between patients and at the end of each day. A Cal/EPA Impressions, dentures and other appliances going to and coming from the outside laboratory should be disinfected Inability to provide 24 hour access for dental emergencies is a departure from accepted standards of care. Verification made that surfaces not capable of being disinfected by routine methods should be covered with impervious materials. Gloves must be changed between patients and before leaving the operatory. Personnel shall always use protective gloves, masks, eyewear, coats or gowns during patient care Indicate name of staff member making the change. (Dental Practice Act) **Reviewer Evaluation Measures** Page 3 Revised 8/29/03

Review Criteria	Reviewer Evaluation Measures
B. Reasonable appointment scheduling for plan members?	1. Initial appointment
	2. Routine/working appointment
II. Facility and Equipment	
	Verification made that facility and equipment are clean, safe and in good repair
	1. There are no visible stains or significant scarring of furniture or floors.
A. Clean, Safe, neat and well maintained?	2. There is no debris on floors or other areas, especially patient care, reception, infection control areas and laboratories.
	3. Décor should be easily cleaned and well maintained
	4. For protection of everyone, employees and patients, lighting should be sufficient to allow safe ingress/egress and to maintain good vision without fatigue.
	5. Dental equipment should be appropriate and in good working condition:
	5a. No equipment with obviously broken parts, visible damage, temporary repairs or grossly torn upholstery.
	5b. Current certification results for equipment requiring local, state or federal certification on file at the facility.
	Compliance with mercury hygiene, safety regulations.
B. Compliance with mercury hygiene, safety	1. Amalgamators covered.
regulations?	2. Bulk mercury and scrap amalgam sorted in sealed, unbreakable containers.
	3. Mercury spill kit.
III. Emergency Procedures and Equipment	
	For fire and/or natural disasters:
	1. A plan indicating escape routes and staff member's responsibilities, including calling for help.
A. Written emergency protocols?	2. Exits clearly marked with exit signs.
B. Medical emergency kit on-site?	3. Emergency numbers posted, (911, Fire, Ambulance and local 7-digit numbers in both front office and back office or lab. Written protocol for calling for help. Note: If office protocol entails only calling 911, then this section does not apply and evaluation should be marked "N/A"
C. Portable oxygen supply available?	Medical emergency kit should be complete, easily accessible and labeled with an inventory of contents. Staff should be aware of location of kit. Recommend staff in-service training for general use of contents.
	Portable oxygen supply tank for medical emergencies should be available.
	1. Recommend tanks be maintained full and a positive pressure bag or ambu bag be available.
	2. Recommend staff in-service training for use of emergency oxygen.
	3. Staff should be aware of location.
IV. Sterilization and Infection Control	
A. Sterilization and infection control protocols followed?	Verify sterilization and infection control procedures are in place. Verify staff trained in sterilization and infection control procedures and protocols. Sterilization and infection control procedures shall conform to the Dental Board of California. (DPA Section 1680dd,
-	
B. Protocols posted for sterilization procedures?	Protocols conspicuously posted. Dental Board of California. (DPA Section 1005b23, January 2001)
C. Weekly biological (spore) monitoring of sterilizer?	Sterilization procedures shall be monitored weekly and recorded, by appropriate methods, as required by the Dental Board Bo

Review Criteria	Reviewer Evaluation Measures
	1. Contaminated instruments are properly cleaned.
	a. Utility gloves used.
	b. Ultrasonic cleaning recommended. Solutions changed per manufacture's specifications.
	2. Acceptable procedures for sterilization are:
D. All instruments and hand-pieces properly cleaned, sterilized, and stored?	a. Storage of instruments shall be in sterile bags or packs that are sealed. There should be no evidence of moisture or torn bags. Instruments must remain in sealed, sterile bags until ready for use. Once opened, all instruments must be rebagged and resterilized, regardless of use.
	b. Hand-pieces shall be properly sterilized between patients and bagged until use.
	c. The instruments, which cannot be cold-sterilized, or autoclaved, must be disposable and must be disposed of immediately after use.
	d. High level disinfectant should be utilized only on instruments that cannot be subjected to other methods of sterilization
	Maintain a written log indicating:
E. Log kept monitoring changing of sterilization solution?	1. Acceptable EPA registered brand name of the cold sterilant (high-level disinfectant) tuberculocidal hospital disinfectant, utilized according to the manufacturer's recommendations for sterilization.
	2. Indicate dates solution changed, and dates of expiration of fresh solution.
	3. Indicate name of staff member making the change. (Dental Practice Act)
	1. Personnel shall always use protective gloves, masks, eyewear, coats or gowns during patient care.
F. Staff wears appropriate personal protective equipment?	2. Splattered masks and garments should be replaced as necessary.
	3. Gloves must be changed between patients and before leaving the operatory.
G. Proper and adequate use of barrier techniques?	<ol> <li>Verification made that hard surfaces in all operatories are disinfected between patients and at the end of each day. A Cal/EPA approved solution should be used.</li> </ol>
	2. Verification made that surfaces not capable of being disinfected by routine methods should be covered with impervious materials.
H. Hand-pieces and waterlines flushed appropriately?	Operatory unit lines shall be flushed between each patient and in the morning before use, for an appropriate amount of time.
I. Infection control and cross contamination prevention	1. The pumice pan should be changed after each use and rag wheels should be sterilized or discarded.
procedures followed in the office and laboratory?	2. Impressions, dentures and other appliances going to and coming from the outside laboratory should be disinfected.