

## Using LACE Online with Sycle

Jennifer Henderson Sabes  
Jessica DeFauw



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## Using LACE with Sycle.net

- LACE Online Basics
- New LOL features
- Benefits of LOL
- How to use LOL in Sycle
- Understanding LACE data



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## Using LACE with Sycle.net

- LACE Online can benefit your clinical practice
- Sycle simplifies the process. In this presentation, new features of LACE will be reviewed, helpful hints for interpreting the patient training data within Sycle will be provided, and methods for streamlining the LACE dispensing process will be discussed.

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## LACE Online Cloud-based training



- . \* Same basic training as LACE HE
- . \* Clinician monitoring
- . \* 11-day program
- . \* Train anywhere with standard browsers
- . \* Requires device with Internet access

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## Review of LACE

- Home-based Aural Rehabilitation program that incorporates:
  - Standardized assessments
  - Adaptive training in difficult listening environments
  - Helpful hints with informational counseling
    - Listening and communication skills
    - Hearing aid use
  - Provides feedback




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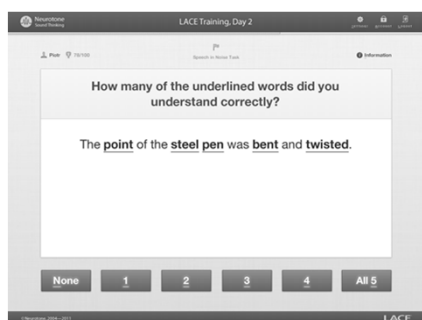
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## QuickSIN




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## Review of LACE

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    - Hearing aid use
  - Provides feedback

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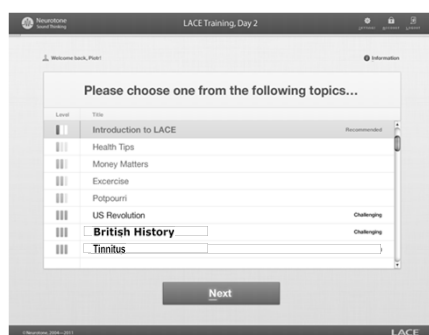
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## Training topics




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## Review of LACE

- Home-based Aural Rehabilitation program that incorporates:
  - Standardized assessments
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    - Listening and communication skills
    - Hearing aid use
  - Provides feedback

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## Helpful hints



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Throughout the Training, LACE Provides Helpful Hints & Communication Strategies

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## Review of LACE

- Home-based Aural Rehabilitation program that incorporates:
  - Standardized assessments
  - Adaptive training in difficult listening environments
  - Helpful hints with informational counseling
    - Listening and communication skills
    - Hearing aid use
  - Feedback about performance

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## Lace online Feedback




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## Using LACE with Sycle.net

- LACE Online Basics
- New LOL features
  - Exclusive to LOL and Sycle.net
- Benefits of LOL
- How to use LOL in Sycle
- Understanding LACE data

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## Helpful hints videos

- More introduction videos about tasks and LACE training
- Communication strategies and managing the acoustic environment
- Assistive listening devices and ADA related information

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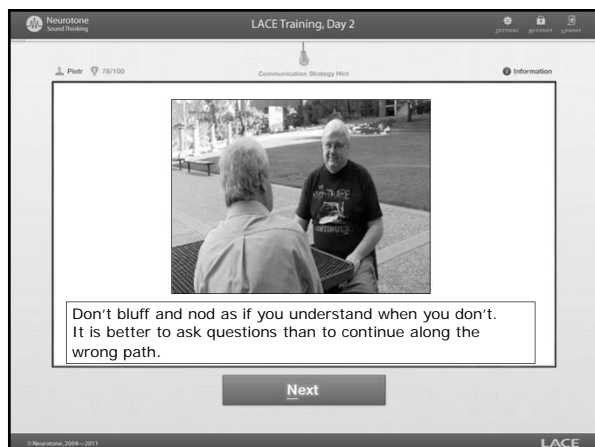
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## Subjective Outcome Measures

- HHIE
  - Social, Emotional and Total scores are tracked
- Communication Confidence Profile
  - 12-item scale
  - Provides information about confidence and self-efficacy in a variety of listening situations and topics

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## HHIE

LACE Training Day 1

Rob ADMIN Survey 704.41

Does a hearing problem cause you to use the phone less often than you would like?

Yes Sometimes No

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## Communication Confidence Profile

LACE Training Day 1

Rob ADMIN Survey CCP 704.41

Are you confident that you can understand a person speaking in large rooms like an auditorium or house of worship?

Extremely Very Moderately Slightly Not At All

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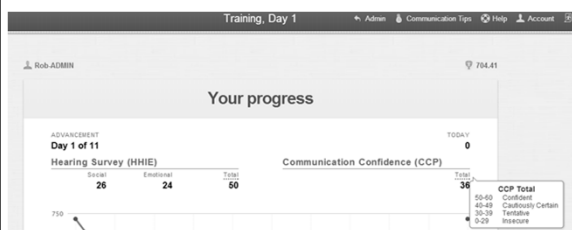
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## Patient feedback



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## Evidence supporting Auditory Training

### Auditory Training

Tremblay and Moore, 2012  
 Sullivan, Thibodeaux and  
 Song, et al, 2012  
 Tye Murray, et al, 2012  
 Millward, et al, 2011  
 Humes, et al, 2009




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## Published Evidence supporting LACE

- LACE training
  - Song et al, 2012
  - Sweetow and Henderson Sabes, 2006
  - Martin, 2009

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## Who Should Be Encouraged to do LACE?

- Performance on any given test cannot reliably predict overall improvement, though **poorer scores on HHIE and speech tasks were correlated with greater improvement.**
- *Don't rule out those with more significant impairments.*

Sabes JH and Sweetow RW. International Journal of Audiology. 2007, 46(7): 374-383.

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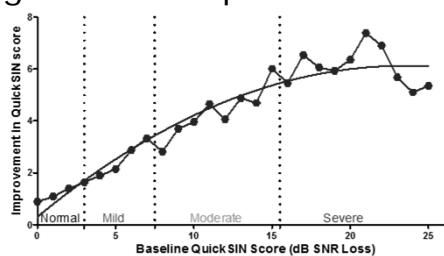
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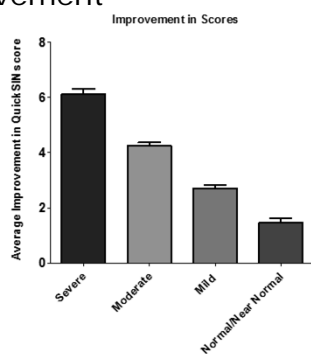
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## Magnitude of improvements



## Normative Improvement



- Even a 1 dB improvement in SNR has been estimated to be commensurate with a 6-8% improvement in percent correct scores for sentence recognition

(Crandell, 1991; Wilson et al., 2007)

### Hearing aid use (Return for credit)

**13% RFC**  $\Rightarrow$  **3.5% RFC**  
with conventional LACE in same  
time period

Martin (2007)

**15% RFC**  $\Rightarrow$  **3% RFC**  
with integration of 9 in-office  
sessions of LACE CE

Taylor and Shrive (2008)

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### Hearing aid use

- 23 Clinic study
  - **541 fittings** in 6 months
    - **294 non-LACE** patients
    - **247 LACE** patients
  - **58 returns** from these fittings
    - **44 non-LACE** returns for credit = **15.0%**
    - **14 LACE** returns for credit = **5.7%**

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### Hearing aid use

- 10 clinic study
- **523** Patients did not receive LACE
  - Average return rate (*including exchanges*)  
**28%**
- **170** Patients received LACE
  - Average return rate (*including exchanges*)  
**5.3%**

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## Hearing aid use

- 10 clinic study
- **523** Patients did not receive LACE
  - Average return rate *(including exchanges)*  
**28%**
- **170** Patients received LACE
  - Average return rate *(including exchanges)*  
**5.3%**
  - 60 did <1 LACE sessions. Return rate 6.8%
  - 43 did 1-10 LACE sessions. Return rate 4.7%
  - 67 did 11-20 LACE sessions. Return rate 4.5%

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## Sycle.net implementation

- About 400 users who completed the 11 days of LACE
  - 6 returned HAs.
  - Return rate 1.5%
- Average visits within 90 days:
  - 4 visits with LACE
  - 7 visits without LACE

## Hearing aid use

- More individuals using amplification
- Less return visits
- Patients understand active role in rehabilitation

## LACE Online-Sycle Integration

- The LACE interface in your Sycle patient record will now display more detailed patient training results
- Ability to view training scores for each task type (Speech-In-Noise, Rapid Speech, etc) as each session is completed.
- Streamlined dispensing protocol, including integrated patient instructions.

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## Dispensing LACE

Once you subscribe to LACE Online dispensing LACE to patients is an easy three-step process:

1. Select the Sycle patient record  
Scroll to the LACE tab  
Generate a LACE Online Access Code.
2. On the Patient Purchase Order Summary:  
CLICK the link to LACE Instructions
3. This link will display a document that includes:  
LACE Online Access Code  
Detailed login instructions  
Recommendations to achieve best results.  
Print the document and present to the patient.

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The screenshot shows a patient record interface with several sections:

- waiting list**: A table with columns: Start Date, End Date, Appt Type, Length, Clinic, Provider. An **add** button is in the top right.
- hearing test**: Displays "Left Ear: Level 2 - Mild", "Right Ear: Level 2 - Mild", and "Last Test Date: 09/10/2013". Buttons for **NOAH**, **Refresh**, **view all**, and **edit** are present.
- 01/25/2013 NOAH Session (read only)**: A section for session details.
- auditory training powered by LACE®**: A section with an **edit** button and text: "Start new LACE Online® Program for patient Dee Mason [here](#)".
- audiological reports powered by CounselEAR™**: A section with text: "You are not enabled as a CounselEAR™ user." and a **get enabled for CounselEAR™** button.
- current equipment**: A section with buttons for **view all**, **replace both**, and **edit both**. Below are **return** and **exchange** buttons for two items.

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**Purchase Summary**

Marina  
Marina  
880 Market St.  
San Francisco, CA 94123  
USA

Apply for HealthPlan Instant Credit [apply now](#) [Payment Calculator](#)

Staff: Lucy Abright 1  
Client: Marina 1  
Date: 9-2-17-2-2013  
Tracking #:   
Invoice #: 00621

Qty	Item	Description	Unit Price	Amount	Delivered	Action
1	LACE® Online	(Your LACE® Online Code: 2673-1171-9513) (See for: www.laceonline.com)	\$50.00	\$50.00		<a href="#">edit</a>

Invoice Total \$50.00  
Sales Tax \$0.00  
Grand Total \$50.00  
Insurance Payments \$0.00  
Total Write-Offs \$0.00  
Patient Payments \$0.00  
Amount Due From Insurance \$0.00  
Amount Due From Patient \$50.00

[payments](#) [write off](#) [refund](#) [fee](#) [delete all](#) [save](#) [print](#) [close](#)

[statement](#)

[LACE Instructions](#)

[HA order form](#)

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Print the document and present to the patient.

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**LACE™**  
Listening and Communication Enhancement

Thank you for choosing the LACE Online listening training program!

To register and begin your training, visit [www.lacelisting.com](http://www.lacelisting.com).

On your first day of training, you will need to enter your access code (found below), email address and set a password. After that, you may sign in to your training account any time by clicking on the green Sign In button in the top right-hand corner of the home page.

Your LACE Online account can be accessed from any computer or tablet with an internet connection.

To begin training with LACE Online, open your web browser and visit:


[www.lacelisting.com](http://www.lacelisting.com)

Name:  Access Code:

Recommendations for achieving the best results with LACE Online:

- Begin LACE training as soon as possible or as directed by your hearing professional.
- Daily training is recommended. LACE Online is an 11 day course.
- Avoid long gaps of time between training sessions, preferably no more than 1-2 days.
- Pick a time for your training session when you are relaxed and alert.
- Choose a training environment free of loud noises and potential distractions.
- LACE training can be quite challenging at times, so don't be discouraged by some incorrect responses. It is a normal part of the training process as your listening skills improve.

For technical support email [support@neurotone.com](mailto:support@neurotone.com)

 © 2013 Neurotone  
info@neurotone.com  
www.neurotone.com

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## Dispensing LACE

- Progress is automatically updated and displayed in the Sycle patient record, including:
  - Number of training sessions completed
  - Daily training task scores
  - QuickSIN test scores
  - Subjective Outcome measure scores

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- auditory training powered by LACE®

**Profile**

Access Code: 5780-1601-5410 Status: Complete Latest Scores  
 Registration #: 123456 Start Date: 04/17/2013 QuickSIN™: 1.00 Competing Speakers: 8.52 dB  
 Reg. Email: wolfgang@sycle.net End Date: 05/07/2013 Speech In Noise: -0.64 dB Word Memory: 2.82  
 Rapid Speech: 0.36

	QuickSIN™ 2	Speech In Noise 2	Rapid Speech 2	Competing Speaker 2	Word Memory 2	Status	
04/17/2013	1 of 11	-1.50	-10.00 dB	0.65	3.00 dB	1.60	Completed
04/19/2013	2 of 11	--	-2.52 dB	0.40	--	--	Completed
04/23/2013	3 of 11	--	--	--	11.06 dB	3.69	Completed
04/26/2013	4 of 11	--	-0.49 dB	--	--	4.38	Completed
04/27/2013	5 of 11	--	--	0.40	9.81 dB	--	Completed
04/28/2013	6 of 11	-0.50	-1.51 dB	--	7.00 dB	--	Completed
05/01/2013	7 of 11	--	--	0.40	--	3.64	Completed
05/02/2013	8 of 11	--	-2.04 dB	0.47	--	--	Completed
05/03/2013	9 of 11	--	--	0.46	9.76 dB	--	Completed
05/06/2013	10 of 11	--	-0.64 dB	--	--	2.82	Completed
05/07/2013	11 of 11	1.00	--	0.36	8.52 dB	--	Completed

**Notes:** Patient is very motivated to use LACE and improve their ability to understand conversations.

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auditory training powered by LACE®

**Profile**  
 Access Code: 5780-1601-5410 Status: Complete  
 Registr. This is the average SNR Loss score from 2 lists of the standardized QuickSIN test.  
 Reg. En. Click here for more information on interpreting QuickSIN™ scores.

**Latest Scores**  
 QuickSIN™: 1.00 Competing Speaker: 8.52 dB  
 Speech In Noise: -0.64 dB Word Memory: 2.82  
 Rapid Speech: 0.36

	QuickSIN™ 1	Speech In Noise 2	Rapid Speech 1	Competing Speaker 2	Word Memory 2	Status
04/17/2013 1 of 11	-1.50	-10.00 dB	0.65	3.00 dB	1.60	Completed
04/19/2013 2 of 11	--	-2.52 dB	0.40	--	--	Completed
04/23/2013 3 of 11	--	--	--	11.06 dB	3.69	Completed
04/26/2013 4 of 11	--	-0.49 dB	--	--	4.38	Completed
04/27/2013 5 of 11	--	--	0.40	9.81 dB	--	Completed
04/28/2013 6 of 11	-0.50	-1.51 dB	--	7.00 dB	--	Completed
05/01/2013 7 of 11	--	--	0.40	--	3.64	Completed
05/02/2013 8 of 11	--	-2.04 dB	0.47	--	--	Completed
05/03/2013 9 of 11	--	--	0.46	9.76 dB	--	Completed
05/06/2013 10 of 11	--	-0.64 dB	--	--	2.82	Completed
05/07/2013 11 of 11	1.00	--	0.36	8.52 dB	--	Completed

**Notes:**  
 Patient is very motivated to use LACE and improve their ability to understand conversations.

## Cycle / LACE Pricing:

- Cycle/LACE – Exclusive low flat monthly rate:
  - \$119 per mo. / Full-time Clinics
  - \$69 Per mo. / Part-time Clinics
- Unlimited LACE access codes per month per location
  - Professional wholesale is \$200/10 access codes
- How to get started:
  - Visit [www.lacelisting.com/demo](http://www.lacelisting.com/demo) to experience a brief demonstration of LACE Online
  - Enroll in LACE Online via the Administration section in Cycle
  - Contact Cycle at (888) 881-7925 to learn more

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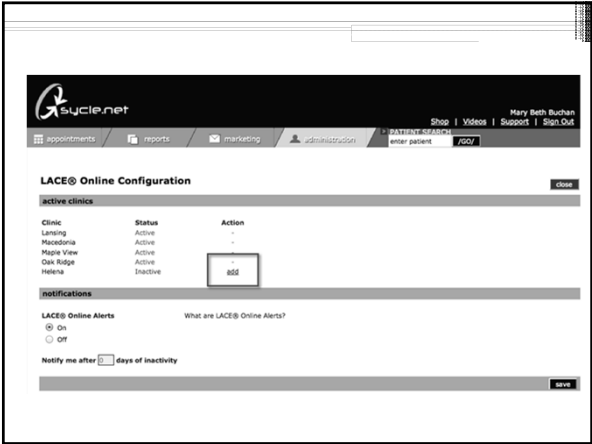
View History

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2	1	2.00	2.00	2	1	2.00	2.00
3	1	3.00	3.00	3	1	3.00	3.00
4	1	4.00	4.00	4	1	4.00	4.00
5	1	5.00	5.00	5	1	5.00	5.00
6	1	6.00	6.00	6	1	6.00	6.00
7	1	7.00	7.00	7	1	7.00	7.00
8	1	8.00	8.00	8	1	8.00	8.00
9	1	9.00	9.00	9	1	9.00	9.00
10	1	10.00	10.00	10	1	10.00	10.00
11	1	11.00	11.00	11	1	11.00	11.00
12	1	12.00	12.00	12	1	12.00	12.00
13	1	13.00	13.00	13	1	13.00	13.00
14	1	14.00	14.00	14	1	14.00	14.00
15	1	15.00	15.00	15	1	15.00	15.00
16	1	16.00	16.00	16	1	16.00	16.00
17	1	17.00	17.00	17	1	17.00	17.00
18	1	18.00	18.00	18	1	18.00	18.00
19	1	19.00	19.00	19	1	19.00	19.00
20	1	20.00	20.00	20	1	20.00	20.00
21	1	21.00	21.00	21	1	21.00	21.00
22	1	22.00	22.00	22	1	22.00	22.00
23	1	23.00	23.00	23	1	23.00	23.00
24	1	24.00	24.00	24	1	24.00	24.00
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32	1	32.00	32.00	32	1	32.00	32.00
33	1	33.00	33.00	33	1	33.00	33.00
34	1	34.00	34.00	34	1	34.00	34.00
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40	1	40.00	40.00	40	1	40.00	40.00
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47	1	47.00	47.00	47	1	47.00	47.00
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49	1	49.00	49.00	49	1	49.00	49.00
50	1	50.00	50.00	50	1	50.00	50.00
51	1	51.00	51.00	51	1	51.00	51.00
52	1	52.00	52.00	52	1	52.00	52.00
53	1	53.00	53.00	53	1	53.00	53.00
54	1	54.00	54.00	54	1	54.00	54.00
55	1	55.00	55.00	55	1	55.00	55.00
56	1	56.00	56.00	56	1	56.00	56.00
57	1	57.00	57.00	57	1	57.00	57.00
58	1	58.00	58.00	58	1	58.00	58.00
59	1	59.00	59.00	59	1	59.00	59.00
60	1	60.00	60.00	60	1	60.00	60.00
61	1	61.00	61.00	61	1	61.00	61.00
62	1	62.00	62.00	62	1	62.00	62.00
63	1	63.00	63.00	63	1	63.00	63.00
64	1	64.00	64.00	64	1	64.00	64.00
65	1	65.00	65.00	65	1	65.00	65.00
66	1	66.00	66.00	66	1	66.00	66.00
67	1	67.00	67.00	67	1	67.00	67.00
68	1	68.00	68.00	68	1	68.00	68.00
69	1	69.00	69.00	69	1	69.00	69.00
70	1	70.00	70.00	70	1	70.00	70.00
71	1	71.00	71.00	71	1	71.00	71.00
72	1	72.00	72.00	72	1	72.00	72.00
73	1	73.00	73.00	73	1	73.00	73.00
74	1	74.00	74.00	74	1	74.00	74.00
75	1	75.00	75.00	75	1	75.00	75.00
76	1	76.00	76.00	76	1	76.00	76.00
77	1	77.00	77.00	77	1	77.00	77.00
78	1	78.00	78.00	78	1	78.00	78.00
79	1	79.00	79.00	79	1	79.00	79.00
80	1	80.00	80.00	80	1	80.00	80.00
81	1	81.00	81.00	81	1	81.00	81.00
82	1	82.00	82.00	82	1	82.00	82.00
83	1	83.00	83.00	83	1	83.00	83.00
84	1	84.00	84.00	84	1	84.00	84.00
85	1	85.00	85.00	85	1	85.00	85.00
86	1	86.00	86.00	86	1	86.00	86.00
87	1	87.00	87.00	87	1	87.00	87.00
88	1	88.00	88.00	88	1	88.00	88.00
89	1	89.00	89.00	89	1	89.00	89.00
90	1	90.00	90.00	90	1	90.00	90.00
91	1	91.00	91.00	91	1	91.00	91.00
92	1	92.00	92.00	92	1	92.00	92.00
93	1	93.00	93.00	93	1	93.00	93.00
94	1	94.00	94.00	94	1	94.00	94.00
95	1	95.00	95.00	95	1	95.00	95.00
96	1	96.00	96.00	96	1	96.00	96.00
97	1	97.00	97.00	97	1	97.00	97.00
98	1	98.00	98.00	98	1	98.00	98.00
99	1	99.00	99.00	99	1	99.00	99.00
100	1	100.00	100.00	100	1	100.00	100.00

**Subtotal:** 100.00  
**Tax:** 0.00  
**Total:** 100.00

**Payment Information:**  
 Payment Method: Credit Card  
 Card Number: 1234 5678 9010 1112  
 Exp. Date: 12/31/2013  
 Cardholder Name: John Doe  
 Billing Address: 123 Main St, Anytown, CA 90210  
 Phone: (555) 123-4567  
 Email: john.doe@anytown.com

**Order Summary:**  
 Order Number: 12345  
 Order Date: 10/29/2013  
 Order Status: Pending Payment  
 Order Total: 100.00  
 Tax: 0.00  
 Total: 100.00



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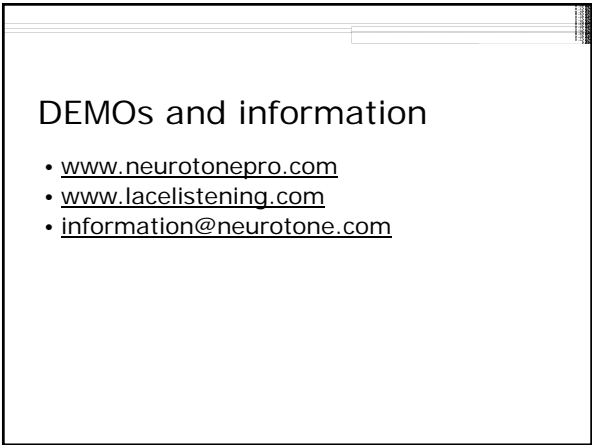
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